

Grass Roots

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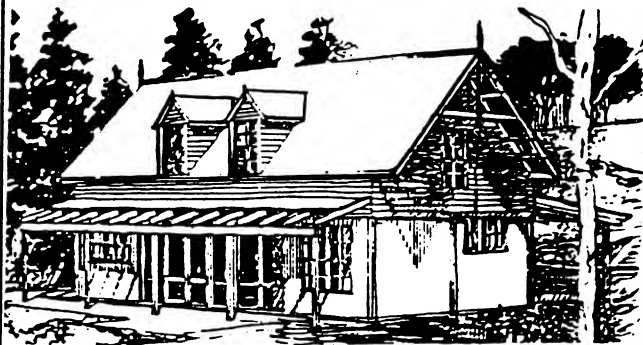
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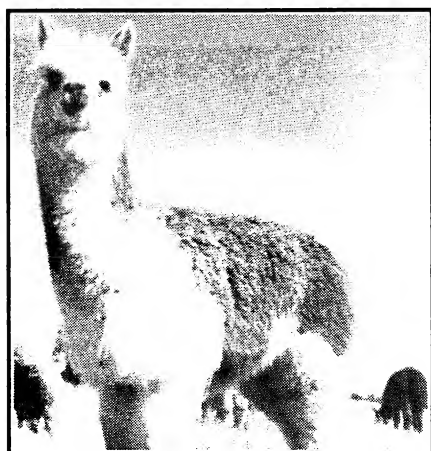
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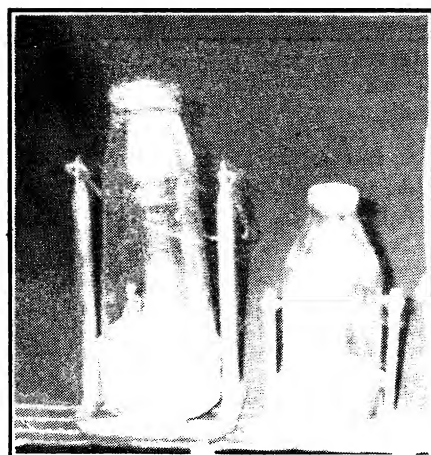
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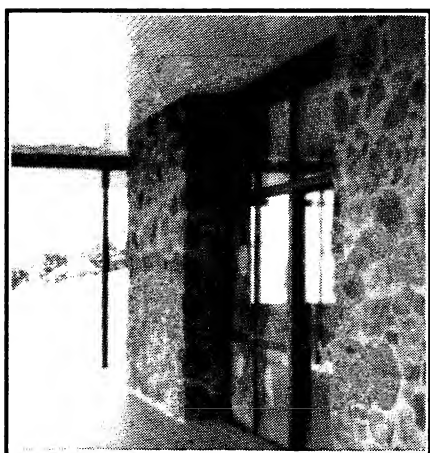
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Front Cover: The Smith family outside their owner-built mud brick home at Seaham, north of Newcastle. After seeing mud homes in India and Africa, they had to fight for the right to do it their way in Australia. See 'A Mudbrick Vision', page 16. Photos by J Bell.

Back Cover: A dream come true. Large, sun tracking, photovoltaic arrays at the solar power station, Kalbarri, WA, feed solar electricity to the grid producing pollution-free power for WA homes. See 'Green Power - a New Generation', page 23.

* * *

Edited by Megg Miller and Mary Horsfall.

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GUMNUT GOSSIP

by Megg Miller.

The first week of the year invariably feels the longest. The holiday period between Christmas and New Year clearly introduces lax habits, making rising early, dressing up and forcing feet into formal shoes very difficult. The days too seem endless: 'Is it only 2.30? I don't know why I feel so tired...' Such post-holiday oscitancy is not unique to us, many readers probably encountered a similar disinclination to slot back into the 9-5 mould. But whilst we started off with moans and groans it was enjoyable catching up and sharing stories about Christmas and how we each whiled the hours away during the break. Mary's descriptions of day trips to several historical towns elicited envy and a determination that we others would find time in the coming year to visit similar places and partake of the pleasures they offer. Kim also had an active holiday and enthralled us stay-at-homes with descriptions of the New Year Down-to-Earth Confest. Camping, open air ablutions and answering the call of nature on loos with no doors and scant walls, opened her eyes and elicited a touch of nostalgia within me and probably amazement amongst the others here. It may have been years since I attended a confest but the friendliness of those attending sounded the same, people prepared to stop and talk or help out, whether old acquaintances or complete strangers. The food too impressed Kim, delicious, inexpensive vegetarian fare.

Suffice to say we others were quite unsettled by the adventurous tales of Kim and Mary. Catching up on reading or weeding are not exactly exciting. We will probably be gnashing our teeth a little longer because Kim is due to take a couple of weeks leave. 'This time in a fortnight I'll be on the Gold Coast/scuba diving/driving down to Byron Bay...', while we others labour over bagging the subscribers' copies. 'Oh to be young again,' Christine often sighs, listening to Kim. Youth is a special time in life and should embrace different and adventurous activities. We hope Kim has a terrific holiday, she deserves it as she has done an incredibly competent job typing up and then paging this issue, but not so wonderful that she doesn't return.

Contained in this issue is a short summary of the results of our Reader Survey. We decided against presenting the material in graph form because the latter are

often meaningless to the uninitiated. Instead we have an overview that is hopefully interesting as well as informative. Not all readers responded, but hopefully the many different interest groups that comprise our readers are represented. The gardeners, the chook keepers, the vegans and the carnivores, singles, families, and retirees, the list is considerable. No doubt we will touch base with readers again in the form of a survey in a few years and hope that those that didn't respond this time feel confident enough to do so then.

Although the survey mentions that Feedback is favourite reading, it omits to say it rated nearly twice as many votes as its closest rivals. It's not surprising it is so popular; no other section can inform, entertain, irritate and restore faith in human nature all at the same time. It also enthuses and infuriates, sending readers racing for their pens and dashing off quick responses, or pleading for advice. People may seek long forgotten seeds, lost friends, books or obscure parts for antiquated machinery. We in the office have total confidence that Feedback readers can solve any problem presented to them. The mishmash of letters reflects people's trust in one another, their generosity and breadth of skills and knowledge.

From the number of letters that go into Feedback you can appreciate that we receive an enormous amount of mail. Often we get requests that necessitate an immediate answer or are personal or specific and of no interest to the general readership. We looked at the pile of mail that went out recently and realised that few people enclosed a stamp or SAE to assist with postage. We're happy to help where and when we can but would really appreciate the courtesy of an SAE if you are asking for our help. The same of course applies when writing to authors of letters or articles in GR. I can recall several letters in Feedback in recent years saying that the authors had been inundated with requests and consequently struggled to meet postage costs. We will all benefit if the old-fashioned practice I'm suggesting is adopted, and probably receive speedier replies as well. This principle also applies to folk sending in contributions for possible publication. If you want unaccepted work returned it will be necessary to include an appropriate envelope



and postage. We are not being pushy – it is commonplace for publishers to request this and, with all the material we receive, necessary.

I have the happy job this issue of introducing an entirely new concept for *Grass Roots*, the inaugural GR Awards, an acknowledgement of achievement and excellence amongst our readers. We are constantly astounded by the efforts of GR people, ordinary, everyday folk committed to making a difference. Unlike much of the media, which sees copy in the bleak side of human existence, we think positive values and their practical expression should be brought to people's attention. Many of our readers have made and continue to make a difference to the world around them. They may be practising a sustainable lifestyle, or give generously of their time and knowledge to others, or be active in the wider community promoting or publicising the ideals we all espouse.

Alternatively, they may have developed innovative ways to deal with issues like recycling or conserving our precious resources, or make tools or equipment that are supportive of a low impact lifestyle. Amongst our readers are many people to be proud of and many achievements to highlight. The awards are a wonderful opportunity for us all to recognise and reward positive effort. Like many people, we at GR are tired of reading about crime and apathy and the frolics of royalty. *Grass Roots* has long been a leader in its field. We were extolling conservation, whole foods and sustainable farming methods years before they became politically sound, just as we mailed our magazines out in brown paper bags before it was trendy to do so. Dare we hope that our small efforts to acknowledge hard work, innovation, community service and kind help will encourage others to follow suit and so initiate a resurgence of interest in good and wholesome living.

MOVING TO THE COUNTRY

A Tale of Two Properties

By Bryan Buckingham, Gordon, NSW.

Careful planning and setting realistic goals have enabled Bryan Buckingham to realise his dreams. His working background in financial planning gave him invaluable knowledge to apply when it came to financing the purchase of his own properties. In this article he shares his experience with other readers.



It is six am. I am enjoying a cuppa listening to the myriad bird calls, watching the sun rise over the tree-covered hills in the background, our fledgeling orchard in the middle distance and our native-planted bank in the foreground. A glance to the north, over our paddocks into our rainforest with its piccabeen palms (bangalows) and hoop pines standing out against the background of darker trees, fills the heart with joy. I see the purple tibouchinas, yellow allamandas, multicoloured bougainvilleas bordering the road to the south. On the west of the house, with a northerly slope, is the area where I am fencing the future vegetable garden against the predation of wallabies and parrots. Five of the neighbour's ducks just waddled by.

This is our bit of heaven. Twenty minutes to the beaches of south-east Queensland's Sunshine Coast. Our seven acres is the culmination of forty years of work and well worth it. We are often asked: How did we get here? Why did we move from our family and friends in

Sydney? How did we finance it?

BACKGROUND

I have spent my working life in sales – in the last 21 years as an insurance agent. The insurance industry taught me a lot about planning and finance, and exposed me to the thoughts and ideas of a great number of people. Questions I would often ask clients are: Where are you now? Where do you want to be? How are you going to get there? What are the alternative ways? What is the best way for you?

A management course I completed in the early 1960s stressed the need to: set goals, make plans, establish controls or checkpoints for progress, determine objectives, get organised, review regularly.

In this world there are people who are dreamers and those who are doers. Dreamers stop vaguely at 'Where do I want to be?'. Doers start with a dream but pursue it to the hard part of setting and achieving goals. To be workable,

goals must have the following characteristics: be committed to writing and clearly stated, have a definite timescale set for achievement, be realistic and achievable.

Two guiding principles I believe in are:

- Success is achieving the goals you set for yourself.
- Luck is where preparation and opportunity meet.

I have applied these principles to being where I am now – retired at age 57, financially comfortable and living where, and leading the life, I want to.

FINANCING THE PROJECT

We are all aware of the need for money to purchase what we want. With a big project like buying land and building a home we need savings and borrowings. The only way to save is to stop spending all of your income and invest some of it instead. Once you have accumulated some savings you can borrow money, if you don't have savings you won't have

much success borrowing.

In my case I borrowed against whole life insurance policies which I had taken originally as family protection. These have the advantages that while the protection grows so do the cash surrender values. Loan values are 90 percent of these. Loans can be taken at commercial interest rates, with no set-up costs, and can be repaid in part or whole at any time without early repayment penalty charges. Interest is only charged on the daily reducible balance. If you die the whole loan is paid off and the balance of the insured amount is paid to your estate. There is considerable incentive to repay as quickly as possible. It is a very cheap form of finance compared to property land loans and home loans and you don't commit any other assets except the policies concerned.

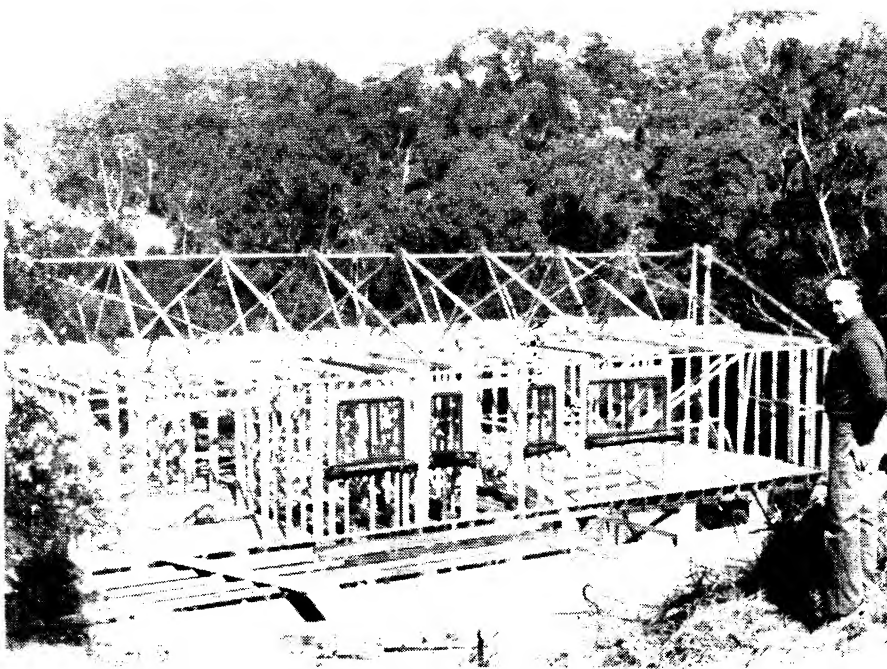
LEARNING TO LIVE IN THE COUNTRY

The Central Coast

As city dwellers we knew nothing about the country. We spent numerous weekends with estate agents looking for scarce five-acre properties. We were learning and we kept looking. Eventually we found a reasonable block which we could afford, one which we could barely walk on because two-thirds was rainforest and the rest was covered in blackberry, lantana, wild tobacco, wild raspberry and giant privet. The block is an integral part of the Katandra forest with deep clay soil overlaid by 600 millimetres of topsoil and a pH of 5.5.

How to clear it? After three slogging weekends with a heavy duty brushcutter I had cleared enough for a house site. There had to be a better way! We approached a chap selling second-hand tractors to do the slashing. No, he wouldn't do that but he would sell us a tractor, slasher and blade with rippers for \$2000. That was the best thing I ever bought. The small Fergy tractor will do more than a similarly priced ride-on mower!

How to dispose of the slashed rubbish? In June it was too wet to burn. By August it was dry and burn it we certainly did, and almost half the hillside as well. We were saved by a back-pack spray and a neighbour who was a member of the local bushfire brigade. Another set of lessons learned: Never light a fire early in the morning because the wind rises throughout the day. Burn only small piles, one at a time. Check



Realistic goal setting and careful planning will help dreams turn to reality.

fire bans with the local bushfire brigade first. Always have plenty of water available, fire tools and knapsack spray on hand. Dress in protective gear. Of course you could mulch it all. We were learning more.

What should we plant? Both my wife and son are so keen on this lifestyle that they completed the Horticulture Certificate at Ryde TAFE. I bought a book about trees by Valerie Swane and decided to make a plan of the block. It included the house site, tanks, dams, shed, garden areas and tree locations with names. Most books tell you how high a tree grows but not how wide. More research. Then we planted.

Today our Central Coast property looks like a lovely park. We have a nice Australian homestead kit home, a chook house with six laying hens, a large vegetable garden (6 x 10 metres), 11 fruiting citrus, 2 peaches and a nectarine, a good sized shadehouse (8 x 10 metres) and similar area allocated to hardening the plants under dappled shade. The only drawbacks are a gentle south-west aspect and in winter we lose the sun by 2.30 pm. It is cold and we can only grow vegetables from spring to autumn.

THE MOVE TO QUEENSLAND

The Sunshine Coast

We spent much of our holidays caravanning the north coast of Queensland. We loved the subtropical climate, the beach-

es and the less frantic lifestyle, so different from the cities. But we wanted the basic conveniences of shopping not too far away, electricity, an area which would get sea breezes in summer from early morning, rainforest paddock and a north to north-east aspect. The land still had to be workable with a reasonable slope. It took two annual holidays of searching with grid and road maps before we found seven acres we could afford, four of paddock and three of rainforest.

The first task was to bulldoze a level area on the top of the block for shed, house site and in between area to manoeuvre cars and tractor. Our first property had taught us the importance of level areas for comfort. We put the topsoil to one side, levelled the ridgetop, cut out the house basement, shaped the water tank areas, then replaced the topsoil on the nonbuilding areas. With the installation of electricity, a 20,000 litre water tank and a 6 x 9 metre machinery shed we had a base to work from.

Since we could only come up from Sydney for a week at a time we had to plan carefully. We found a local builder who understood our needs. On every visit during the next six years we towed a trailer full of plants propagated at the central coast property.

The rainfall on the Sunshine Coast is 1300 millimetres per annum. Soils are severely leached and highly acidic ('A'

horizon pH to 5.5, 'B' horizon pH 4.5), with low fertility status, low nitrogen and high aluminium according to analysis. I spread three tonnes of dolomite over the four-acre paddock and used pelletised chook poo with a balanced fertiliser like Multigrow on all but the native areas.

We have planted a variety of fruit trees. We have a windbreak of 60 hibiscus bushes along the road backed by seven *Grevillea robusta*, six Jacaranda protecting the paddock and four African tulip trees protecting the house. There are two exotic mini-rainforest areas, one the size of a small Sydney domestic block. The western boundary is protected by a variety of pines and casuarinas.

The house is surrounded by hibiscus, twelve varieties of palms, gardenias and allamandas, and the verandah rails are covered with creepers—pyrostigia, *Pandora pandorea* and passionfruit. We used mulch extensively around trees whilst they became established (lots of grass available) and woodchips were used to establish the rainforest areas.

The house is designed for both solar heating and breeze cooling. Living areas are north-facing with wide verandahs all round. In winter, the sun heats the concrete and carpet floor through large glass doors/windows. In summer, when the sun is overhead, the breezes, large open windows and insulated roof make it a very pleasant home. Carport/verandah and bathroom/laundry are to the west which protect living areas from the heat of the afternoon sun. Our rapidly growing rainforest and large fig tree on the boundary protect the house from afternoon summer sun.

CONSIDERATIONS IN MOVING TO THE COUNTRY

I would recommend you first carefully

consider the following:

- Put your toes in the water first, don't make the move before gradually trying the lifestyle.
- Family responsibilities, the well being of parents and children.
- Your own health.
- Your age and physical ability to do hard manual work.
- Not rushing it.
- Finances – What will you need for capital expenditure and income?
- Do you need to work for income?
- What are the opportunities for jobs? Self-employment? Doing specifically what?
- Neighbours – Are they people you can live alongside?
- Social life – What is available? Is it your scene?
- What are you giving up to leave? What will you gain?
- What services are available? Shops, medical, dental, hospital, car repair, farm machinery services, TV reception.
- Change of living costs – petrol to town, machinery fuel, price of food, clothing, tools needed (building and gardening/farming), fencing costs, land clearing, fertilisers and sprays and equipment, sinking a bore.
- Local government regulations – How do they affect what you want to do?
- Facilities available – electricity (costs of getting to your house), water, sewerage, rate and taxes.
- Some costs reduce (stubbies and T-shirts costs less than suits). Some costs increase. Do a careful budget.

Take off the rose coloured glasses and give it a hard look first before you make the final step.

This article has been reprinted from the Permaculture North Inc, *Monthly Newsletter*, Oct '93. Enquiries to 10 Darley St, Nth Sydney 2060.

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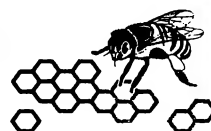
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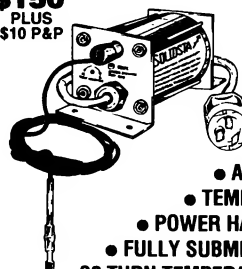
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PUREBRED PHEASANTS

by Megg Miller, Euroa, Vic.

Pheasants are flighty, nervous birds with colourful, exotic plumage. They have long been classified into 16 distinct categories, including a grouping for jungle fowl and one for peafowl. The other groupings cover ruffed pheasants, long tailed pheasants, eared pheasants, peacock pheasants, true pheasants and tragopans, gallopheasants, cheer, koklass, monals, Argus and the Congo peacock. Many of these categories are further broken up into species and even subspecies with the result that there are a wealth of different pheasants available.

We do not have representatives from all the categories mentioned above, in fact we probably have stock from less than half. For the beginner or hobbyist this does not present a problem – there is a sufficient variety of species to select from. It is customary for those wishing to produce table birds to choose from amongst the ‘true’ or game breeds, which comprise the Ring-neck, the Blackneck, Mongolian and the Green and the Blue Mutants. All of these are striking to look at as well as having a good sized body and it is not unusual to hear of birds bought for breeding for the table ending up as a revered object of beauty and living a long life in the aviary.

We will look at this group next issue, for now we will indulge our fantasies and discuss the stunningly beautiful ornamental breeds. By ornamental we mean birds kept solely for visual appreciation, the only expectation of them being the successful reproduction of the species. The Golden and Lady Amherst are two pheasants to consider. Belonging to the ruffed category, they are related and have been interbred freely (to their detriment) so you will need to ensure you are purchasing pure and not crossbred stock. Both breeds are characterised by an amenable temperament and may be quietened to the point of eating out of your hand. Body size is small and because of this they are economical to keep. Males reach sexual maturity and thus fully develop their splendid coloured plumage in the second year, however first year birds can be sexually active although eggs may not be fertile. Hens come into full lay in their second year and are capable of setting on eggs and raising their young,



though this may be dependent on the strain you have. Two or three hens per cock bird is an acceptable ratio and eggs take 23-24 days to hatch.

Golden cock birds are a rich yellow with a rusty red ruff. The latter is raised impressively in courtship rituals. A thick, flattened crest comprised of long feathers follows the crown line. Golden hens are marvellously camouflaged in shades of brown and buff with barred and stippled feather markings. Lady Amherst cocks display white, blue and green in their plumage and have a small, narrow elongated crest. Hens are somewhat similar to the Golden in markings. Note: There are several recognised subspecies of Golden pheasants.

The Silver is one of the gallopheasants, which are characterised by blue or red velvety wattles and crimson coloured legs. They are a much larger bird than either the Golden or Amherst, and the males have a well deserved reputation for pugnaciousness. They are protective of their hens and may fly at intruders, including their keeper. Stock can become very friendly, and the females are usually excellent mothers. Incubation is 26-27 days, and pairs or trios are commonly kept. The white plumage of the Silver cock is delicately

laced with black, and offsets a striking blue-black breast. The hen has brown colouring flecked with buff and white.

The long tailed Reeves is also a popular ornamental pheasant, a big bodied bird that matures in its first year. The cock bird's tail grows to nearly two metres long, but breaks easily so it is rare to see it in an unspoilt state. Reeves are fast, expert fliers, which contributes to the tail damage. The cock bird of this breed is very combative, so care may be needed when entering the aviary and hens might have to be separated from their mate at the end of the breeding season. Colouring is less spectacular than in the other breeds described, but this is balanced out by the magnificent tail. Males have a brown laced gold breast, and barred tail, while the females are softly coloured in grey, chestnut and brown. Incubation takes 24-25 days and hens are competent mothers.

If you are interested in keeping one of these ornamental breeds, reread the advice last issue on management so you are appropriately set up before getting your stock. Expect to pay around \$50-60 a pair for young birds. Remember too that temperament varies considerably within a breed, some strains being quieter than others.

'GRASS ROOTS' READER SURVEY

Many thanks to everyone who completed and sent in the reader survey in *Grass Roots* No 110. It contained a long list of questions which seemed to exhaust a couple, but motivated others to add an extra page or two with their particular comments and concerns. Your replies have been really helpful in deciding what goes into *Grass Roots* and in which order of preference. We hope you will have a better magazine as a result, and one which maintains its originality and informative nature.

It took a long time to collate the data from all the replies, because we had to go through all of them a number of times. This eventually became an exhausting task, and we must admit to thinking we should do surveys more often and keep them shorter.

The length of the survey was never criticised, however, what was, surprisingly, was the fact that the survey was printed on the back of a Feedback page. Our sincere apologies to all those who rewrote, typed or photocopied their surveys to keep their copy of GR intact or so, as one respondent put it, they could answer the Feedback letters on the back of the survey. This criticism, although not part of the survey, turned out to be the most frequent criticism of the magazine. We promise to put that right next time.

Another large percentage of the readership suggested we publish monthly, rather than bi-monthly. For their sakes, we hope Megg doesn't read this article. She is looking forward to a holiday this year, and would not be happy if she thought it would be compromised by even the thought of an increased workload.

So who are *Grass Roots* readers? They form a diverse and interesting group with the usual range of occupations and wages. Some are quite highly paid, others are students, many are on part-time work, run their own business or live self-sufficiently without a high income. About half have one or more children at home, and they are distributed around the country in approximately the same proportion as the population. Most do not read a daily paper. (There were some interesting comments about the value of newspapers!)

A high proportion of readers have a small farm, and of those that don't,

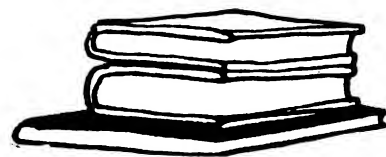
many would like to own one or intend to buy one in the near future. A number of readers have large farms and read the magazine to get ideas on how to reduce costs which are rising faster than farmers' incomes.

A high proportion of *Grass Roots* readers are interested in conservation and are actively involved in some conservation activity. Most of their activity is practical and directed towards working with others to fix or improve the environment in the immediate vicinity.

Many readers don't have a holiday every year, and might go a number of years without one. When they do take a holiday they like to go off camping, caravanning, or visiting relatives.

In relation to how readers use their copies of GR, what surprised us most, we think, was the number of times readers referred to their copies of GR. Most put down frequently, and a few said almost every day. As well, a high proportion of readers have been reading the magazine for more than 2 years. 'Why are they so happy with this magazine?', we hear you ask! Half the readers don't read another magazine like GR and a high proportion like it just the way it is. Most like the informative nature of GR and its special style. Perhaps that style is one that reflects a degree of debate among readers. There are still some that regret the passing of the old cover, but at the same time, many write to say they really like the new style. There is also debate over the kids pages, the poetry page, the Grassword and the recipe section. Many want the latter expanded, many don't.

We think debate reaches its height on one issue – the one readers voted as their favourite section – Feedback. The question of the value of Feedback has raged wildly and even violently in GR over the years. One side sums it up this way: 'I know Feedback is a valuable part of the mag, and I love it!! BUT I get sick of the obvious amateurs wanting a million answers when all they have to do is research', etc. etc. For many, dare I say most, Feedback is their favourite column. Through it readers get the answers they seek, real answers from real people, and often make real friendships in the process. We can sympathise with the experienced Grass Rooter who has solved many of the basic self-sufficient

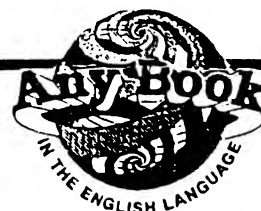


cy challenges and who wants more specific information. That is why we have tried to highlight the topics in Feedback, so those skimming for special information can do so easily. But most like to read the letters and to write a few. One reader sending in a survey said, '*Grass Roots* has made me so many wonderful friends through the Feedback pages'. Many more want that section expanded, with the answers to the questions published as well.

Most of all, we really appreciate the little messages of support and goodwill on the surveys. Thank you all very much. Some readers said they were keeping their copies for the eventual move to the country, or that the magazine had helped them decide to leave the city. Another said they had 'avoided GR for a long time thinking it was too flaky and hippy for me. Have been addicted since actually picking it up and reading a copy at my mother-in-law's (of all people)'. Another found it a 'breath of prime country air compared to the rest of the media with its obsessions about money, murders, rapes, wars, courtroom trials, systematised sport and business news'. Or, 'Keep up the wonderful work! Hope you are around when my grandchildren are in need of a service like this.'

One couple wrote that surveys bring about marital conflict. 'We couldn't agree on multi-choice questions!', they said.

And of course there is always a bloke writing in with that same old problem: 'Please – more WA ladies in the personal column!' Revolutions come and go. . .



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NETWORK EDUCATIONAL

GUARDING THOSE TREES

by Judith James, Pearce, ACT.

After five years of battling the elements and a goodly selection of animals, both feral and native, I have finally hit upon a no-to-low-cost tree guard that is proving to be most effective. Having exhausted all the supplies of old wire we could access, plus a few friendships, we were forced to look for alternative creative rabbit-proofing ideas.

There are many excellent tree guards on the market today, but these all cost money and for those of us on a shoe-string budget, every guard bought, means fewer trees planted. On the other hand, the trees must be protected when they're young because each one lost represents time and money wasted. The only ones left smiling being well fed rabbits!

Having tried almost everything we could think of from cardboard milk, wine and juice cartons, to two-litre plastic fruit juice bottles, to PVC pipe, down-pipe off-cuts, and old ag pipe, we found each one had a drawback.

Old tyre guards and cut away drums, although in many ways eminently practical, were not considered as an option.

But still we bought more trees and as soon as we finished one planting we'd order another. Blue gums, red spotted gums, Tasmanian blackwood, cork oaks, waratahs, a grove of sugar maples, a new orchard, the list was endless and all needed to be protected.

When the first order of 100 casuarinas arrived early, it was back to the drawing board. The tree guards had to be made from something readily available, easily obtainable and easy to work with. They couldn't cost anything, or, failing that, just a few cents per guard, and they had to deter hares, rabbits and snuffling wombats, as well as protecting the tube stock from extremes of temperature, hot in summer and freezing in winter. They had to be fairly tall and quick and easy to erect. And lastly, a personal quirk, they had to look okay.

The only thing on hand at the time was a bag of two-litre soft drink bottles waiting to be taken to the recycling depot. By cutting the tops off a couple of two-litre soft drink bottles with a pair of scissors (which is very easy) and sliding one inside the other, you get a remarkably sturdy double (or triple) decker tree

guard. The sides are smooth and slippery and have obvious advantages.

Use the scissors to punch small holes in the side of the bottles and thread through plastic coated wire twists that come with name tags on nursery plants. I save those, but a roll of the same green twist can be bought for 99 cents. My roll is still going strong after making 100 guards.

Secure the multi-storied guard to a bamboo stake. Bamboo is strong and pliable. I'm going to grow my own especially for garden stakes, but there are usually people who are only too willing for you to curtail the steady march of this rampant plant. Cut green lengths to a good size.

Having dug a hole, fill it with water and let drain away. Firm in the tree. Slip

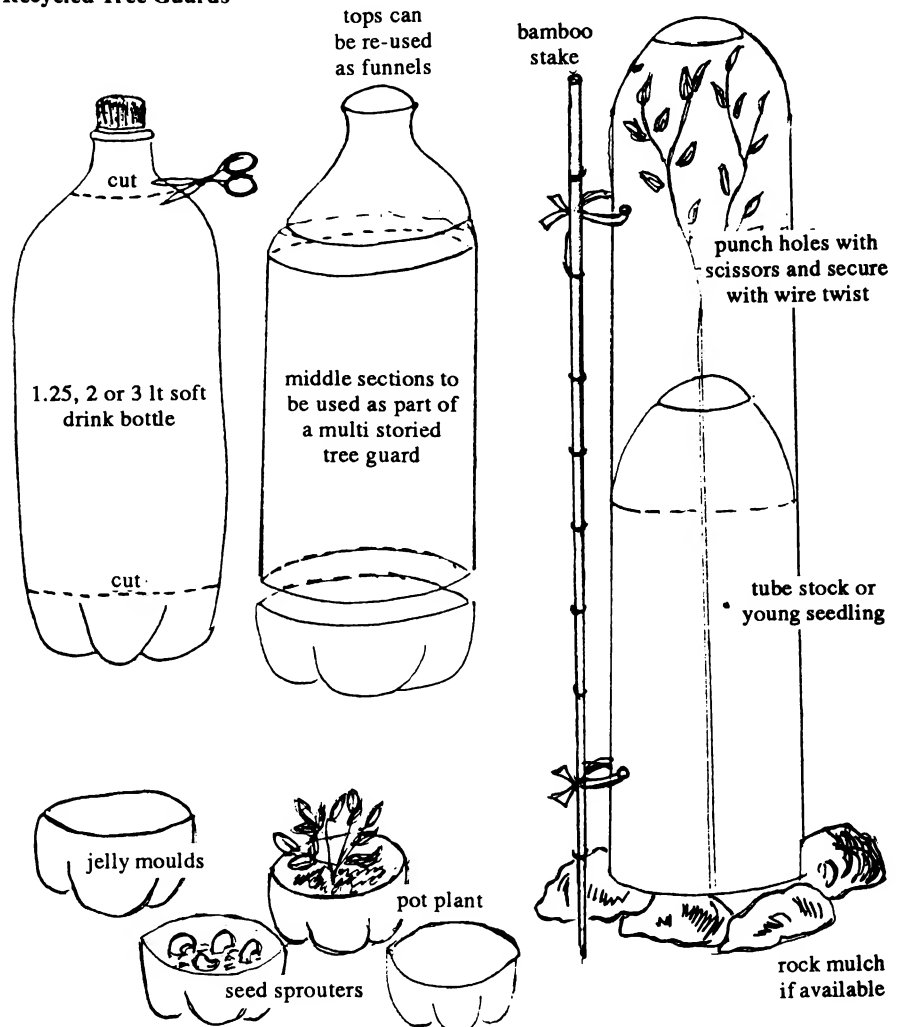
the guard over the tube stock and with a hammer drive the stake into the ground. Water again. Sprinkle a small amount of fertiliser around the base of the tree if desired and cover with thick wet newspaper. Anchor with rock mulch to conserve moisture and help control weed growth.

The new three-litre soft drink containers are every bit as good, being wider and taller. The 1.25 litre bottles have proved perfectly satisfactory too.

The cut-off tops can be used as funnels and the bottoms, which are shaped like flowers, for tracing around, for a jelly mould, for play dishes or for germinating seeds on cotton wool, or as small seedling pots, though don't forget drainage holes.

If you don't drink soft drink yourself,

Recycled Tree Guards



the other 99 percent of the population seems to and a steady supply should pose no problem. As the bottles become available, I make the guards and store them in a cardboard box where they are ready to use when needed. Bamboo stakes I beg, borrow or steal and store in another box.

The guards look good because the plastic is clear and the eye flows through them. They provide a protected environment for the young tree, especially in our highland climate, and we have lost no trees in subzero winter weather. The only problem I foresee is that in our region of climatic extremes, plastic becomes brittle over time and cracks or shatters. If I can just get a few years reprieve though, we can then recycle the wire from trees planted over five years ago.

That's the plan anyway. But the greatest irony in all this tree planting and guarding is that my own grandfather spent so much of his life clear-felling land to make way for pasture. Thousands of acres were cleared, leaving our generation the enormous task of revegetating a bare and sometimes eroded landscape. And here I am jealously guarding every self-sown and newly planted tree. If it were possible to step in and out of time, I often wonder what Grandfather would say.

CLEAN UP AUSTRALIA

Clean up Australia Day, the largest hands-on community environmental event on the nation's calendar, is on again. The seventh national clean up, on Sunday March 3, 1996, is rapidly approaching and organisers are expecting a massive response. By taking Clean Up 'to the streets', Australians who haven't been involved in past years will be able to participate, by just removing the rubbish from their own streets. If at least two people from every street get together and clean up their immediate environment then it will make an enormous difference to our country. It doesn't mean

people have to give up their entire Sunday, just a few hours will make a big difference. It's so easy to do, and it will help build a tremendous rapport amongst all community members.

We still need more volunteers to take up the challenge of co-ordinating. Members of the public or business community who want to co-ordinate a clean-up for March 3, 1996, or find out more information about activities in their area, should call 1800 024 890.

For more information please contact: Suzanne Houweling/Jacinta Lenehan, Profile Communications, ph: 02-552-2255, fax: 02-552-1750.

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THE ALPACA

by David Miller, Sheparton, Vic.

The alpaca is a member of the ruminant camel family, native to South America. Other members of this family are the vicuna, the llama, and the guanaco. All interbreed producing fertile offspring, but it is only the alpaca and vicuna which produce fleece of high quality.

The alpaca is more common than the vicuna and comes in three types. The huacaya produces a fibre similar to wool which is dense and distributed evenly over its body. The animal has a bonnet of wool on the head and 'mutton chops' on the cheeks. Huacayas are the most common type of alpaca in South America and Australia. The suri has a finer fleece with a strongly defined staple which hangs off it in long, ropey locks. This fleece has a high lustre and a silky feel. The suri is a less common type. The chili is a type which describes the animals which fall between the other two. Generally huacayas are bred to each other, and chilis bred to suris to refine the fibre.

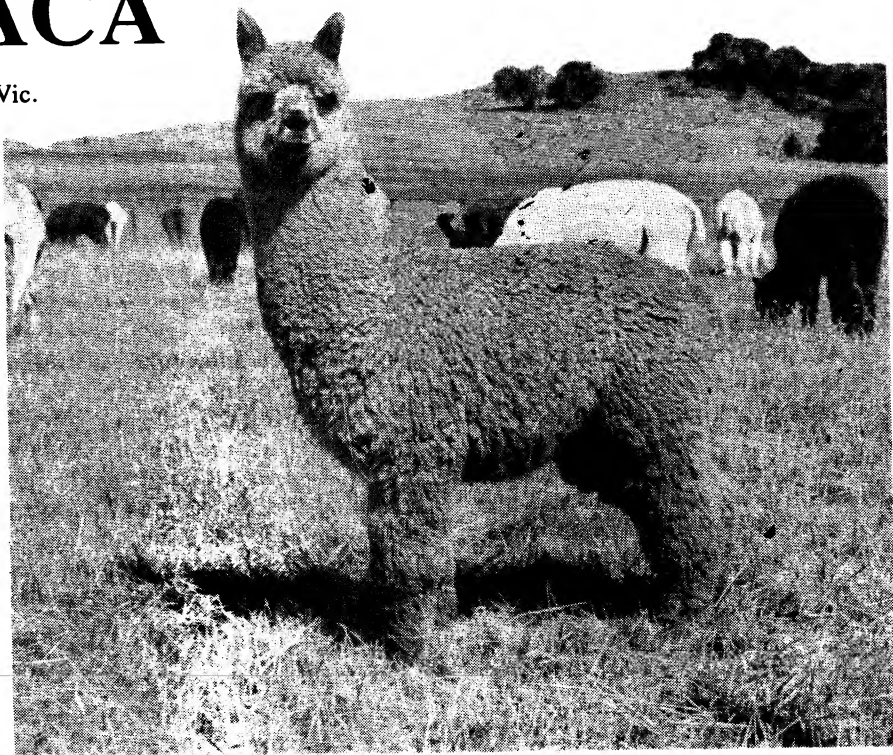
Colour in the alpaca is quite variable from black to white, with brown and broken colours being common; there are 22 colours in all. About 15 percent of the animals are white, but there is a growing demand for naturally coloured fibre and some specific demand for fawn.

The vicuna has the finest fibre in the world (12-13 microns) and is the smallest of the camelid family, but there are not large numbers of vicuna in South America and they are wild.

In their native environment, alpacas are farmed at high altitudes where there is low oxygen and little moisture. Temperatures can drop to as low as -20°C at night. Here the alpacas browse coarse mountain grasses and low bushes, and their strong group bonding facilitates the keeping of herds of 1000 animals by one person. These herds are moved nomadically up and down the mountain according to the availability of feed.

HUSBANDRY

Alpacas are browsers which use their split upper lip to gather food. They have



a digestive system similar to other ruminants, but have three stomachs rather than four. This makes them more efficient than sheep and cattle, because they can absorb more nutrients from the feed. However, as browsers, they are used to more roughage and a diet higher in minerals (like goats). In Australia, alpacas have been found to need supplements of selenium, iron and zinc (similar to people?) as well as the trace elements normally in short supply in different areas, usually copper and cobalt.

Alpacas need parasite control which is usually in the form of an injection of cattle drench at the dose appropriate to the bodyweight. Alpacas are expert spitters, so an oral drench may be quickly rejected. Parasite contamination is reduced by the herd's habit of always dunging in the same spot.

The feet of the alpaca will need to be clipped if the animals are kept on soft country. Ordinary sheep foot trimmers are used for this.

While sheep lose their teeth as they grow older, alpacas have permanent teeth that just keep growing. They also grow fighting teeth, used when animals compete for dominance in the herd. These need to be cut off to prevent stock

hurting each other, while the teeth used for grazing may have to be trimmed every few years.

Stock may need vaccination for clostridial diseases, the dose being similar to that for cattle.

Shearing is usually an annual event, after the worst of winter is over. Alpacas are not thrown onto their tails like sheep, but are either shorn standing if they are quiet, or stretched out on the floor using ropes tied to their fore and hind legs. This is a slow process but it allows about 60 to be shorn each day.

Alpacas like to roll and need a patch of sand for this purpose. They can also suffer from heat stress in hot climates and need shade in their paddocks. They will also cool off under a sprinkler or go and sit in the dam.

While alpacas are hardy livestock, and do not suffer from footrot or flystrike, they are still affected by a range of normal health problems that usually require veterinary attention.

BREEDING

The young alpaca is called a cria. Gestation period is 11.5 months and the crias are usually born without difficulty, often between 10.00am and 3.00pm. It is

usual to monitor the young closely to make sure they are feeding properly – the hairy coat can make detection of feeding problems difficult.

Alpacas do not have a heat cycle, and ovulation is induced by contact with a male. The female is in constant heat and this is only changed by the stimulus of mating. If the female ovulates after mating she then can become pregnant and the attraction to the male ceases. Mating takes place in a sitting position – the female sits and the male straddles her, mating from a sitting position behind her. The female will usually ovulate one day later and may be receptive for two days after the first mating. Rejecting the male is usually a sign that she has conceived. Paddock mating is the simplest method, but the use of a yard is often preferred. This stimulates the male to work better and aids management through better record keeping and the prediction of birth times for each female.

Twins are rare in alpaca, but it is not unusual for breeding females to regularly produce a cria each year. Mothers also fiercely protect their newborn from predators, including the family dog.

INVESTMENT

Alpacas were first imported into Australia last century, but were lost through

lack of interest. Recent imports began in 1988, and now there are over 10,000 animals and more than 1200 breeders throughout the country. Current prices for alpaca females are \$15,000 - \$30,000 and the same for stud males. Neutered males cost about \$800 and service fees about \$1000. There are a number of stud auctions each year, as well as the many private sales direct from the breeder.

Annual fleece production is two to six kilograms per animal, worth \$40-80 per kilogram, and the quality of the fleece may vary. A breeding female, pregnant for almost a year, will produce about two kilograms and a neutered male about four kilograms. All colours are acceptable, and many purchasers prefer the naturally coloured variety. Most is sold to handspinners at present, but the Alpaca Association has formed a fibre co-operative to market the wool collection scheme. The co-op has already produced alpaca quilts, using the low value parts of the fleece, and has started exporting these. It is about to release a knitting yarn which uses the mid-range fibres and the highest quality wool will be sold into the industry for high value fashion garments.

There is much discussion in the alpaca industry about fibre production, and this is important in any breeding programme where the animal's coat is

eventually going to be shorn for sale into a high value market. The current price of breeding stock, however, dictates that any prospective breeder must show breeding stock and market them vigorously to make a profit on such an expensive investment. Fibre production alone will not ensure a return, so marketing, animal management and show preparation skills are important. It is then up to the individual's own judgement of the market and choice of breeding stock – there is less risk in buying the best.

I'm sure many alpaca breeders did not care about the price of their foundation animals. They wanted a unique and attractive animal on their small acreage. A breed which is different, fascinating, friendly and where the animals virtually sell themselves. Their alpacas are hardy and require little care and can be stocked at a higher rate than sheep. Their love for these animals and their dedication to them far overrides the details of the development of a fibre industry and their enthusiasm for the breed will probably ensure the success of anything they do as a group.

Contacts

Australian Alpaca Association Inc, PO Box 464, Brentford Square, 3131. Ph: 03-9877-0778.

Thanks also to Phil McConachy (ph: 052-661-256) for the practical advice in this article.



The alpaca is a popular investment – friendly, photographic, fashionable fibre.



A MUD BRICK VISION

by David Miller, Shepparton, Vic.

Mark and Diane Smith first met while on a six-month safari in North Africa. There they saw mud houses in villages in Nigeria, Niger and Algeria, and later in India. Some earth dwellings were six storeys high and the vision of them stayed with the Smiths long after they returned to Australia.

They landed back in Oz worse than broke, owing money borrowed to complete the trip. So when they eventually bought their small acreage at Seaham, north of Newcastle, they did not know how they would finance the building of a costly, conventional house with no savings. They decided to check out the mud brick scene because they had the time to become owner builders. Eventually they found Dael Allison and Rick Haughton at Mudlark Design and together they designed an open plan, passive solar home, with that all-important garage. The garage would be built first to give the Smiths experience in mud brick making and laying, and to provide temporary accommodation while building the home.

Mudlark erected the frame for the garage and Mark and Diane made and laid the bricks, producing a comfortable dwelling with a bedroom and bathroom. In the process, the Smiths learnt to make really strong, high quality mud bricks and the experience of laying them and finding out about all the carpentry jobs in the process was invaluable.

The council was quite supportive, although the inspectors had little experience with mud building. The major requirement was that the bricks be tested, and when the results from the University of Newcastle were sent in with the plans, they were approved with only minor amendments. Council also did not oppose the couple living on the block in temporary accommodation while building the home. The requirements were that there be toilet and cooking facilities, so if there was a caravan and toilet these needs would be satisfied.

The developer, however, did oppose the Smith's determination to live in their garage while building. There were caveats to this effect on the title, and also

that homes on the estate be built of brick. So while the council was supportive, Mark and Diane were soon faced with the prospect of being taken to court by the developer. At this stage, Diane was studying nursing at the university in Newcastle and living on the block, while Mark was training as a fireman and living in Sydney, commuting when he had time off. They built as fast as they could while their solicitor tried to delay proceedings. This gave them 18 months, but in the process, their solicitor admitted that they were building in mud. The opposition responded with a firm 'No!', but their argument became stuck on the definition of brick. Apparently they had not described the type of bricks which were to be used – kiln dried or air dried – and the muddies won that battle.

Eventually the case went to the Supreme Court, to the dismay of the Smiths, but was settled amicably. They were given six months to finish their home, so with all the delays, they had two years for the job. At one stage, however, they feared they would lose everything.

Mark and Diane now live happily in their muddy with their three children – Jack, Hannah and Ryan. They both agree that the house is really terrific to live in because of the open plan. The ceilings are nearly five metres high with exposed rafters, and the second storey, loft style, sleeping area overlooks the large, ground floor living space. It is simple, effective, gives a great feeling of relaxation and is a wonderful home for entertaining.

Mark and Diane have also evolved a creative and flexible work arrangement.

Now that Diane is a qualified nurse, she works part time, fitting in with Mark's availability to mind the children. Mark is a fireman and has to be on duty for two days and two nights in an eight-day shift roster. This gives the couple enough daylight during each week to run a turf business. Diane does much of the telephone work, taking orders and organising quotes. When an order is received, Mark purchases the turf at a per metre wholesale price from a turf farm, cuts and rolls it at the farm, delivers it and

lays it as required. All the owner then has to do is look after it like any ordinary lawn, mainly water it! The Smiths don't grow their own turf because the soil on their block is not good enough, but being near the Hunter River, with its fertile river flats, puts them close to the turf farms and there is plenty of demand from businesses, councils, housing developments and private homes.

Contacts

Mark and Diane Smith, ph: 049-886-019.
Mudlark Design, ph: 065-505-866.

FIREWOOD CROPS

by Frank Hirst

At times of the year when you are trying to motivate yourself to fill up the wood shed, it's worth pondering the permanence of your wood supply. Firewood is something in which every farm can easily be self-sufficient with a bit of forward planning.

Bush blocks and multi-row windbreaks, if managed to allow regeneration or replacement trees, can provide a perpetual supply, but not everyone has the luxury of plenty of trees. If you don't, a specialist firewood plantation is worth considering. Here are some of the factors you'll need to look at.

SIZE

The area required to ensure a continued supply of firewood varies with the quantity of wood you use, the species you plant and the site you grow them on. The average solid fuel heater consumes between four and six tonnes of dry wood per year. Species selection is considered below but it is actually less important than the site. Most sites in south Gippsland will grow between 10 and 25 tonnes of timber per hectare per year. Stony, exposed ridges will grow less while deep river soil could produce 30 tonnes.

For an average site to supply the average household, one-third of a hectare should be sufficient and half a hectare more than enough.

SITE

The site needs to be readily accessible for extracting wood and the importance of site quality for growth should be kept in mind. A steep corner in a hay paddock or a gully with bottom access are good options on hill farms.

On flat farms any salted areas which

are growing poor pastures should be considered although growth will be slow, while a 100 x 30 metre area will provide an excellent permanent windbreak.

SPECIES

All timbers have similar heating value per unit weight, but with softwoods like pine being only half as dense as the best firewood timbers (boxes and sheoaks) you have to stoke the fire twice as often. The best trees to grow are those which combine fast growth on your site with reasonably dense timber.

Of the box timbers probably only Gippsland grey box would be worth planting in the eastern part of the region. From the sheoak family, which not only have top heating value and excellent coals, but also split easily, the grey bull oak and river sheoak should be considered on plains country. The grey bull oak has the added advantage of being one of the most salt-tolerant of trees.

There are three wattles worth considering, especially in gullies in the hills: blackwood, silver wattle and black wattle. Silver wattle is a poorer fuel but a very fast grower.

Blue gum would be the pick of the eucalypts with its extremely fast growth and dense wood. Swamp gum is very good on low-lying (but not salty) sites. Yellow stringy is the best of the stringybarks. A woodlot could also be managed for post production. Messmate and prickly stringybark also produce quite good firewood. Although they tend to be rather slow, both forest and river red gums produce excellent firewood, especially on the plains.

MANAGEMENT

Trees for a firewood crop should be planted at two to three metre spacings for maximum growth. Access should be borne in mind, although it is not hard to remove certain rows completely at the first harvest.

Good establishment techniques, including some preliminary ground preparation and weed control, are essential if the trees are to grow well.

With a fair site and fast-growing species it should be possible to start cutting within a decade. The eucalypts mentioned all coppice readily to give second and third 'rotations'; the second often quicker than the first because of the established root system. The casuarinas (sheoaks) sucker profusely, while the wattles will often regenerate from accumulated seed. So replanting should not be needed for many years.

It is never the wrong time of year to start planning your firewood crop. If you would like some further advice on establishing one contact me at Department of Agriculture and Rural Affairs, Leongatha, staff at NRCL, or your local conservation and Natural Resources farm tree advisory officer.

Frank Hirst is Agroforestry Development Officer with the Department of Agriculture and Rural Affairs.

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The real voyage of discovery consists not in seeking new landscapes but in having new eyes.

Marcel Proust

OBTAINING A MUD BRICK BUILDING PERMIT

by Elsie Hoare, Berwick, Vic.

One of the most recent buildings to be added to those going up around Berwick has been a large and very impressive mud brick church. Although there are plenty of mud brick homes dotted about our area, somehow the presence of such a public building brings the medium to notice more forcefully and I thought it might be interesting to discover just what goes into getting a mud brick dwelling passed by the local council.

'Where would I start if I wanted to get permission to build a mud brick house?', I asked our resident building inspector, my husband Rick.

He dragged his attention away from his thriller and looked at me with eyes that clearly said, 'What is she up to now?'

'Well you should approach the building surveyor, either in person or by mail, with a proposal that would show that you'd thought through the problems and know how to go about it. You see, most mud brick houses aren't built entirely of mud brick, they're built of wooden post and beam construction and then the infills between are filled with mud bricks, so the bricks don't carry the weight of the roof. Conventional bricks are tested to show that they're strong enough to support a certain weight and mud bricks won't come up to the test. That's your first problem. The second is that mud bricks are not impervious to water and don't handle the weather too well so they must be protected, either by verandahs all round the house or by sealing them in some way – and that must be an ongoing thing. I've seen plenty of mud bricks that have just washed away.

Next you must show that you know how to make the bricks, if you intend to, that you have access to the materials, either on your own property or from an outside source. You can purchase the bricks ready-made if you want to. After that your house just has to comply with the basic regulations for a habitable dwelling – right ceiling height, doors and window sizes, room sizes etc.

As far as I know there are no regulations which allow a surveyor to turn

down your application just because he doesn't like mud brick construction.'

'Okay. So once I get approval I can submit a plan and make an application just as I would for a conventional house?' This said with lip between teeth as I began jotting down details. 'When is the first time you would come out to look at the job?'

'To inspect your foundations.'

'Ordinary foundations like any other house?'

'Yep, reinforced concrete or a slab. Most of them are built on slabs. And I'll need to see it before you pour the concrete, not afterwards, to check if the trenches are deep enough, squared off properly, and that you have the reinforcing steel in the right place.'

'Can I have foundations without steel in them?'

'Not legally.'

'Why must I have steel?'

'Because concrete is very strong; it will take a tremendous weight, but it will not bend. If the ground moves under your unreinforced foundations they will snap, part of it will sink, your wall will crack and go with it, and so will your roof.'

'Oo-er. Right, so I've had my reinforced foundations passed. What comes next?'

'Your post and beam or frame inspection.'

'And what will you be looking for?'

'Oh, the timbers should be the right size, fixed together properly, fixed down properly so they won't blow away.'

'And how can I find out all that stuff?'

'Well, if you can't afford an architect, engineer or draftsman to tell you, you'll have to find out from some other source. You could try the home building section of your local library. You see, your timber sizes are related directly to the size of your house, and the book of codes governing them is about five centimetres thick. Most people use telephone poles.'

I scratched my head, wondering how on earth I could get hold of telephone

poles, but not daring to ask. My bloke has only so much patience and I could see he was itching to get back to his book. I made a mental note to phone the SEC and Telecom.

'Now where do I go from here?'

'Well, once your frame is passed you can put your roof on, then start putting your bricks in place under the shelter of the roof. That'll probably be tin, incidentally, because tiles are very heavy and require more poles to support them. You have, I hope,' he eyed me sternly, 'been building up a supply of bricks all this time, and you have them covered to protect them from the weather while you're waiting to use them.'

Since this was a hypothetical house I fibbed outrageously and agreed that I had a great stack of them.

'Your pretile inspection is next,' he volunteered. 'Shower tiles, that is, although not all councils do that now. It entails examining the substrata of your shower recess to ensure that it won't leak. Your shower must not be built from mud brick but from timber covered with a waterproof plaster or cement sheet, then once it's passed it can be covered with tiles or laminated plastic. It could be built from conventional bricks and rendered with waterproof render.'

He closed his book at last and began ticking off the remaining inspections on his fingers.

'A drain inspection comes next. Your storm water drains are separate from your sewer. If you live in the country they are no problem. You will probably want to collect your storm water and run it off to a fresh water tank, or else you can discharge it somewhere down the paddock (but not onto someone else's property). In town storm water is discharged into the council drains.

The household waste comes next. It will be discharged either into the sewer or a septic tank, its height in relation to the WC, its distance from the WC and its level are all vital to its trouble-free operation. In fact each septic system should be designed to the individual house. The trenches must be covered

with absorbent screenings and soil to allow evaporation, and it's important that no clay substance covers the trenches, or the evaporation process will be hindered.

There are other types of wastage (toilet) disposal systems, many of which have been shown in *Grass Roots*. Some are acceptable to councils if they are backed with proof that they work. They must meet sanitation requirements. Then there is your final inspection and in this we will check to see that the wet areas of your house are painted with a water-resistant paint, that your fireplace is built from well cooked, solid bricks, not mud bricks or wire cut bricks, and that your external mud bricks are protected from the weather, either by some kind of sealer or by a verandah. After that it's all yours,' he shrugged, dismissing my imaginary house and returning to his thriller.

I heaved a sigh that was not in the least imaginary. I'll never have the stamina to build myself a mud brick home but I have great respect for anyone who plans to tackle it.

Later that evening I put one last question to my building inspector.

'What if I wanted to build in wattle and daub or rammed earth?'

The answer came with a groan, muffled through a pillow and a pile of blankets. 'Just substitute those materials for mud brick in all the questions you asked. The answers would be the same.'

WHAT ARE THESE NUMBERS?

Food additives are added to a food for a particular technological purpose, such as to preserve the food, flavour or colour it. Food additives are declared by specifying a class name and then in brackets identifying the additives of that class in the food. The additives can be identified either by their prescribed name or by a code number. A food with the colourants cochineal and curcumin would have in its ingredient list: COLOURS (COCHINEAL, CURCUMIN) or else COLOURS (120, 100). There is an exception for flavours, which do not have to specify the particular flavour used. To find out which additive a number means, The National Food Authority has a book which lists all the additives and their code numbers. Individual copies are freely available. Simply send a self-addressed stamped envelope to: The Information Officer, National Food Authority, PO Box 7186, Canberra MC 2610.

RABBIT CALICIVIRUS DOES NOT AFFECT HUMANS

CSIRO virologists recently corrected misinformation from an overseas veterinarian about rabbit calicivirus posing a threat to human and other species. The Australian scientists said that Alvin Smith of Oregon State University had confused different groups of the calicivirus family. Some members of one group of caliciviruses can infect several species, though this is a natural ability of that virus and does not come about through mutation, as claimed by Alvin Smith.

Rabbit calicivirus belongs to another calicivirus group, and infects only one species. According to Dr Keith Murray, Head of AAHL, 'Rabbit calicivirus is found in more than forty countries around the world. There is no evidence that rabbit calicivirus has infected any animals other than European rabbits, nor is there any evidence that it affects humans'.

'In a three year study at AAHL, 28 different species of animals were inoculated with large doses of the virus. None of those animals became infected with the virus or became sick from it.'

Alvin Smith's press release contained

several factual errors and ignores major developments over the past five years in our understanding of rabbit calicivirus.

'Rabbit calicivirus is found in over forty countries spreading from Asia to Europe and northern Africa. In over ten years, it has killed millions of farmed and wild European rabbits and there has been close contact between people and diseased rabbits. No transmission of the virus to humans, or illness related to the virus, has been reported in the scientific or medical literature. Blood tests have not revealed the presence of antibodies of the virus in humans who have had contact with the virus or with diseased rabbits.'

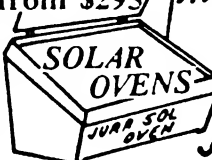
The genetic material of all living things can change, or mutate, from generation to generation. Viruses are no different, but this does not mean that they'll jump species. A good example is the myxoma virus which has mutated, killing fewer rabbits, but still only infecting rabbits.

Further detailed information about RCD is available on request. Dr Keith Murray and Dr Harvey Westbury are available for interview. contact: Niall Byrne 052-275-028 BH, 052-531-935 AH, or 018-524-114.

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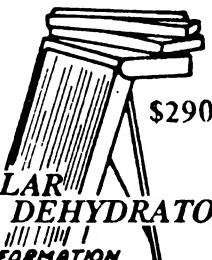
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ECOTOURISM

TREADING THE FINE LINE

by Mary Horsfall, Longwood East, Vic.

....it seemed an enchanting and unspoiled island. I hoped that it would long remain so, for once tourism discovered its whereabouts, it would suffer the same fate as has befallen so many beautiful places on earth.

It is not hard to find quotes deprecating the effects of tourism on the environment, such as this above from renowned zoologist and conservationist the late Gerald Durrell. He was writing in his book *Golden Bats and Pink Pigeons*, about the island of Rodrigues, near Mauritius.

It has often concerned me to read in local newspapers about groups of people deciding, from the best of motives, to promote the attractions of their area. I've wondered whether sufficient attention has been given to possible consequences. I have visited places myself (isolated spots, difficult to access) and been dismayed to find litter and vandalism. However, it is not only this type of intentional destruction which is of concern. Many areas suffer from people overload, no matter how careful the visitors are, and many are simply unthinkingly negligent because of lack of environmental knowledge.

There has long been conflict between tourism and environmental conservation. In too many places the impact of uncontrolled tourism has destroyed or intrinsically changed the very qualities which initially attracted the tourists. There is a fine line to be trod between the rights of people to have access to beautiful and unusual places and the need to conserve the beauty and uniqueness, both for the health of the planet and the enjoyment and education of future visitors. Happily, the growing world-wide ecotourism movement is addressing this conflict in a variety of constructive ways.

In Australia the Commonwealth Department of Tourism in 1994 published a *National Ecotourism Strategy* report in which the following definition is stated: 'Ecotourism is nature-based tourism that involves education and interpretation of the natural environment and is managed to be ecologically sustainable.' It recognises that cultural components are also part of the natural

environment and that ecological sustainability has to involve an appropriate return to the local community and long-term conservation of the resource.

The federal government has committed ten million dollars over a four-year period for development and implementation of a national ecotourism strategy. All levels of government are preparing or implementing ecotourism strategies. Indeed, ecotourism is already a major factor in many local government areas.

In her book, *Ecotourism and Nature-Based Holidays*, Janet Richardson stresses that education values are an essential part of ecotourism. She sees the usual ecotourism experience of a small group of people led by someone able to share knowledge of the area as being more conducive to learning than is independent travel. She defines the elements of ecotourism as interpretation, understanding, participation and conservation.

TYPES OF ECOTOURS

An ecotourism experience does not however, conform to any stereotyped idea this concept may conjure up of a group of studious people tiptoeing through the bush listening with rapt attention to

their learned tour guide. The diversity of holidays which come under the ecotourism banner allows sufficient choice for people of all ages, energy levels and interests.

Certainly, there are cabins in the bush designed for minimum environmental impact, where you need do no more than take gentle strolls exploring your surroundings and interpreting the local ecosystem, or choosing to simply relax in a bush environment. On the other hand, for the adventurous, there are holidays offering paragliding, canoeing and rafting.

There are wildflower tours, bird watching tours, tours for artists, tours for laypeople wishing to assist with scientific research, tours offering the opportunity to stay with indigenous people and experience their culture. Tours can be by bus, by four-wheel drive, helicopter or boat, bushwalking, safari-style, camping or motelling.

Janet Richardson's book gives details of over 200 tour possibilities as well as contact details for ecotourism organisations. The following brief tour descriptions will give some idea of the diversity of experiences available.



A self-contained cabin at Whispering Pines near the Little Desert National Park, solar powered and all waste is recycled for minimal environmental impact.

Adjinbilly Rainforest Retreat

Adjinbilly is twelve kilometres north of Killarney, Queensland, inland from the Gold Coast, and secreted in the unpolluted rainforest of the Condamine River Gorge. The retreat offers family cabin-type accommodation, fully self-contained. The cabins are designed to blend with the environment and are powered and serviced using the latest alternative technology with minimal environmental impact. The main focus is education about and interaction with the environment and wildlife.

Whispering Pines Retreat

Another cabin-based ecotourism venue, but in a totally different environment, Whispering Pines is located on the edge of the Little Desert National Park, near Horsham, Victoria. It offers the opportunity to interact with this amazingly diverse ecosystem. Also available are bushwalks, canoeing, cycling, boating and fishing. The area is of historical as well as environmental interest and the retreat is within easy access of historic homesteads and museums for those wishing to explore these cultural aspects.

Cabins are self-contained, powered by solar energy, all waste is recycled.

Outback

Those of a more rugged disposition might prefer to try a tour in Kakadu or The Kimberley. (There've even been tours into Arnhem land, but it's uncertain whether they'll be a regular event.) Outback tours can involve four-wheel drive travel and/or helicopters or boats, bushwalks off the beaten track where participants carry their own camping gear and food, environmental exploration, and the opportunity to learn about and participate in indigenous cultures.

IMPACT

No matter how careful both tour operators and visitors are, there is bound to be some impact, however minimal, on the environment, the extent and long-term consequences of which are difficult to evaluate. In situations where there are owners/caretakers responsible for implementing and maintaining low-impact strategies there is likely to be less negative environmental effect than in cases where tours frequently move through an area and no one is ultimately responsible for environmental management. The integrity of tour operators and leaders is a vital consideration.



A cabin at Adjinbilly blends harmoniously into the rainforest environment. Alternative technology is a feature of this retreat.

Impact monitoring has so far been difficult to implement and generally insufficient. However, currently a number of relevant authorities, from the CSIRO to the World Tourism Organisation, are developing monitoring methodologies and other research programmes aimed at promoting the long-term sustainability of the ecotourism 'industry'. There is a need for an integrated and complementary approach to the various studies and for widespread dissemination of all recommendations.

The *National Ecotourism Strategy* report recognises that: 'Tourism that degrades the environment, adversely affects the local community or fails to return worthwhile economic benefits is not sustainable in the long term.'

With the good will of all parties concerned in ecotourism, continuing government support, and the flow-over of ecotourism values into the general tourism industry, the growing popularity of ecotourism will (hopefully) make experiences such as that described in the closing quotation less common than they unfortunately have been.

We Flew to Bali. David Attenborough has said that Bali is the most beautiful place in the world, but he must have been there longer than we were, and seen different bits, because most of what we saw in the couple of days we were there sorting out our travel arrangements was awful. It was just the tourist area, ie that part of Bali which has been made almost exactly the same as anywhere else in the world for the sake of people who have come all this way to see Bali.

.....Somewhere not too far from here, towards the middle of the island, there may have been heaven on earth, but hell had certainly set up business on its porch.

From, *Last Chance To See*, by Douglas Adams and Mark Carwardine, Pan Books.

References

National Ecotourism Strategy, by Alison Allcock et al, Australian Government Publishing Service.
Ecotourism and Nature-based Holidays, by Janet Richardson, Simon & Schuster.

Contacts

Ecotourism Association of Australia, Ph: 07-221-1811.
Adjinbilly, PO Box 25, Killarney 4373. Ph: 076-641-599.
Whispering Pines, Box 57, Dimboola 3414. Ph: 053-891-122.

GIVE YOUR DOG A BONE

by Debbie Sweeney, Carrabubula, NSW.

Well, there's no doubt about it! Quite obviously a large number of GR readers have dogs, either working dogs or good mates and family members. Recently I've come across a way to feed our dogs which is practical, economical, extremely healthy, and the dogs enjoy it! I must admit that it all comes down to common sense, but let me explain further.

We all know that dogs are omnivorous. They like to eat manure (yukky!), some grass, scavenge a dead rabbit, bird, rat. Or maybe you've dropped a piece of apple, grape, or your whole dinner, only to see it gobbled up almost before it hits the ground.

If you think about it perhaps you will come to the conclusion that maybe your dog needs to eat these items in order to meet its nutritional needs. Because basically your dog, whether it be a Kelpie or a Chihuahua has the appetite of its ancestor the wolf. Now wolves have survived very well for hundreds of years on a nice diet of deer, sheep or whatever else they could scavenge. Neither did they waste such yummy pieces as the guts, liver, meat, bones and skin. Mother wolves even regurgitated their meals for their cubs back in the den.

What this leads to is that for our dogs to live a long, healthy and active life they need to eat from these various food groups and it is both easy and economical for you to do this.

First, and most importantly, provide raw, meaty bones: chicken, lamb, beef, pork, fish and rabbit. These provide protein and essential fatty acids which are building blocks for a strong, healthy, happy dog. Go see your local butcher and chicken processor to purchase these items inexpensively. Also see him to purchase offal: liver, kidney, hearts, brains, which all are cheap, and delicious from your dog's point of view. Don't use home killed stock and that way you will avoid hydatid problems.

Thirdly, feed your dogs a range of vegies and overripe fruits. What do you think was in the stomach and intestines of the deer that Mr Wolf enjoyed? Nice, partly digested grasses, weeds, bark and berries. So run your vegie peelings and scraps and excess garden produce



Good nutrition is the basis of pet care. This diet, developed by a vet, can keep your pampered pooch or your working dog in top condition.

through the blender to enable them to be fully digested and your dog will benefit enormously.

Dairy products – yoghurt, cottage cheese, milk, cream and butter are all useful foods for dogs and relatively cheap to purchase.

The fifth ingredient is grains which are usually provided in dog biscuits. The best and cheapest grain is good old, rolled oats. They contain the largest proportion of protein, fat and dietary fibre of all the grains – trust the Scots! Make up a simple porridge and add some honey, yoghurt, eggs etc for a nutritious meal. Sprouted grains are also good.

Lastly, there are a few additives that will complete the balance of your dog's diet; these include eggs, kelp, brewers yeast, vegetable oils and various vitamins – E and C especially. Any food scraps that come into the aforementioned categories can be included.

Now in order to achieve a balanced diet it becomes absurdly easy if you follow these guidelines. Over a three week period you can practise food separation and achieve good nutrition by

feeding:

- 10 raw meaty bone meals
- 4 green leafy vegetable meals
- 1 grain meal
- 1 grain & legume meal (baked beans or lentils)
- 1 purely meat meal
- 2 milk meals
- 1 or 2 offal meals.

Come on, think about it! Wouldn't you like to save on vet's bills and see your dog's coat shine with vitality and wellbeing? This article gives you a basic outline, but I would recommend that you buy, beg, borrow or steal a copy of the book *Give Your Dog A Bone*, by Lithgow vet, Ian Billingham, if you have any more questions.

By the way, if you do follow my advice you will be practising some recycling, and supporting Australian farmers rather than the large multinational dog food companies. Have I motivated you enough? Well go for it!

Recommended Reading

Give Your Dog A Bone, By Dr Ian Billingham, PO Box 703, LITHGOW 2790. Available at \$25.00 a copy. Ph/fax: 063-522-824.

TO BORE OR NOT TO BORE

by Susan Hands, Innisfail, Qld.

When we first moved from town out onto our block of land we had to consider the problem of a regular water supply. We are approximately thirty kilometres out of Innisfail and, short of a second gold rush, there is no chance of the local council ever having the need, or money, to pipe water this far out of town.

Firstly we considered putting down a bore. Most of the surrounding farms either had a bore or pumped water directly from the river. We could not pump from the river as we would have had to cross the neighbour's property, so we priced a bore. 'Two hundred feet down to the nearest basalt', said all our neighbours, 'That'll cost you approximately three and a half thousand, and another thousand and a half for the pump - five thousand'.

We looked at each other. No chance. We had calculated down to the last red

cent for the house, and we were building that ourselves, every single stick and steel pole of it.

We then looked at constructing a small dam. This we figured we could do ourselves with lots of stones and rocks and a bit of cement. But once again we were out of luck. The ground would not hold water and to buy any sort of decent dam liner ended up at the price of a bore. So we settled for a two thousand gallon galvanised tank and catching water from the roof. This worked well, although every drop of water, other than drinking water, was used threefold. The water from a typical wash went into buckets to clean or mop and from there onto the garden. I kept telling myself that it was good exercise carrying the buckets of water down the steps and out to the garden, but even my one-resident-son didn't believe me, mind you he's thir-

teen and tends not to believe anything I tell him.

Two years on and various visits from various relatives who do not have to worry about leaving a tap running and we were again thinking of a more permanent supply of water, and what we couldn't grow if we only had plenty of regular water! Taro even, and that's saying something as taro tends to keel over if it doesn't rain twice a day.

Three weeks before Christmas my husband rang up a company that specialises in boring for water and asked them for a quote. The owner of the company had already drilled in our area and he assured us that water was to be found close to the house. We made an appointment for him to come out and divine. This he did, followed closely by my son, and water was assured within fifty feet of the house, horizontally. Vertically the bore hole would have to go down about two hundred feet.

Well we now have beautiful clean sweet water and I wouldn't like to mention the fact that almost from the day the pump was installed it has rained.

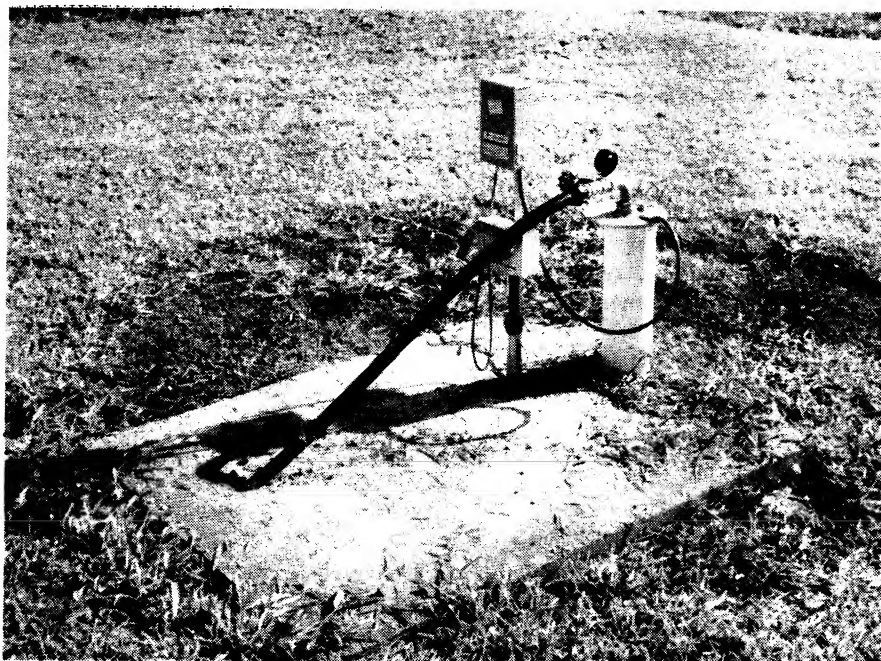
Costs

The following is a list of costs for those interested:


- Drilling costs @ \$20 a foot - \$4635.50
- Pump with fittings - \$1728.95

(We only have a small one and a half-horsepower pump to push the water up into our 2000 gallon tank as we already had a small pump for sending the water into the house.)

- Electrician's costs - \$ 435.00
- Total - \$6899.45**



The bore and pump at last installed to give a good supply of clean water.



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GREEN POWER – A NEW GENERATION

Over the last few years, there has been a quiet revolution taking place in Australia's power generation companies. Under pressure to reduce pollution in energy production, and take some responsibility for greenhouse gas emissions, they have been forced to consider green sources of energy. This has resulted in power generation engineers having to familiarise themselves with alternative technologies such as photovoltaic cells and wind power generators. Consequently, new experimental solar powered systems have been implemented, and with the resources of the power companies behind it, a new wave of development is taking place in alternative power generation which will directly affect the consumer of grid power and the user of stand-alone systems. Here is a special *Grass Roots* report on the green philosophy sweeping the nation's power generating industry.

Alternative power generation is not new in Australia. Years before solar cells were invented and manufactured, diesel generators and wind generators powered the nation's farmhouses (and country towns), while cities had a reticulated supply connecting homes to large generators usually powered by polluting coal. These rural systems were happily discarded when power lines reached the area and eventually, only remote areas were not connected to the grid.

Soon however, the alternative lifestyle and conservation movements gathered pace, and the solar cell became available commercially. Photovoltaic cells allowed the production of electricity from the sun using a system which had no moving parts – unlike wind generators which required regular monitoring and maintenance. So those wanting an independent lifestyle could easily become energy sufficient by a combination of generating their own solar electricity and reducing their consumption. As the sources of pollution were publicised and criticism of it increased, the new green power industry emerged, and as science discovered the polluting effects of the technologies it had developed, more and more people showed that they wanted the world to survive by agitating for change. Today, greenies are now less likely to be the few that climb trees to oppose the destruction of forests or stand in the path of bulldozers to prevent clear-

felling, they are usually average people who want clean, healthy food, clean air, less noise, and who realise these come at a price.

Change has also swept through the power companies. Rather than large, state-owned monoliths, they have been evolving into smaller, privately-owned entities in active competition. Good business practice has resulted in power companies actually listening to their

customers, and giving consumers an alternative to the polluting generation systems which have been in use for a long time.

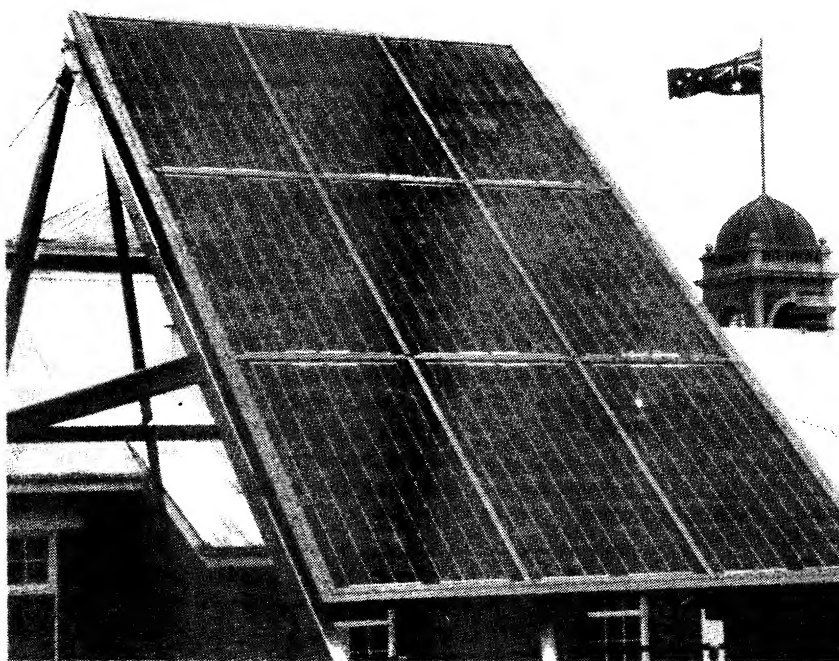
Power companies are also responding to the competitive environment. They are beginning to consider alternative, green energy sources as the way for the future – no one wants to build another coal-fired power station. Power companies see their role as being involved in

education, promotion, marketing and supply of any generating technology which has a future, so they must get in early and know the alternative technology well. So to familiarise themselves with alternative technology systems, they are setting up installations around the country and feeding the power into the grid. (These grid interactive systems use the grid as a battery. Power goes into the grid during periods of low load, and at peak load, extra power may be sourced from the grid to meet demand.) Most of these are solar,

at present, and usually consist of an array of solar panels, sometimes with a tracking device, and an inverter which feeds power straight into the reticulated system. These installations have been responsible for significantly increased sales of solar panels, a trend which is now starting to have the desired effect of reducing the unit price.

VICTORIA

CitiPower, Melbourne's new power



The solar power station producing clean and green electricity for Australian consumers – no coal mining, no pollution, no dammed rivers.

customers and providing them with the services they want. They have responded by making the reticulation system efficient, presenting a cleaner, more considerate image, trying to retain customers by providing them with services and options that they value, and by competing in the open market for new customers by offering service options valued by them. Alternative technology facilitates these aims by providing clean generation, reducing or replacing reticu-

company, has launched a bold new initiative in the generation of electricity from natural resources. They have announced an agreement with Butler Solar Systems Pty Ltd for the design and implementation of a 100kW photovoltaic array to be connected to the CitiPower electricity grid within the Melbourne metropolitan area. CitiPower's aim is to become Australia's preferred power supplier. This installation demonstrates the company's commitment to the reduction of greenhouse gas emissions, and provides a green source of electricity which can be marketed to consumers. This electricity is marketed through the EcoPower programme and is purchased in EcoUnits. Proceeds from these will be used to buy electricity from renewable generators and encourage them into the Victorian electricity grid to reduce the dependence on brown coal.

The Body Shop was first to buy the EcoUnits and will contribute to the production of energy from solar, wind and biomass sources. They, along with some other Victorian companies, are investigating the feasibility of powering their offices with a grid interactive solar system.

Butler Solar have designed a new frame for the solar arrays. Previously frames were made with expensive aluminium, now they are of steel and in a design which is easy to freight and install. The arrays are waterproof and will let light through the photovoltaic cells, so could be used as a roof. Another application is the use of panels as a sound barrier along a city freeway.

NEW SOUTH WALES

In Rozelle, Sydney, the Eco Design Foundation has retrofitted an old building to improve its energy efficiency and made structural alterations to install a 54 panel solar array. The building is equivalent to an office of a medium sized company of 10 people. Energy efficiency was taken seriously and improvements included ceiling fans, a low energy heating system and the replacement of the third tube in the three-tube fluorescent lights with a reflector.

The solar array covers 27 square metres with a generating capacity of 40kW per day which is fed into the grid if not used in running the building. The system has been running and powering the building for six months.

The University of NSW has an ongoing interest in renewable power sources

through its research station at Little Bay, south of Sydney. This facility has a 10kW solar array which is connected to the grid, and is an accredited power company. The university has been actively encouraging education in solar technology and has recently organised the installation of a 1kW solar array on the roof of a suburban high school. This is connected to the grid, and the metering system is run through the school's computer system, so students have up-to-date information on the performance of their own solar power generator. The policy is to install more of these grid interactive systems at high schools for education and green power generation.

At Nimbin, Essex Electrical Pty Ltd make the Greenpak remote area power supply units, a combination of solar panels, inverter, battery bank and generator which can be delivered in the one package. The Greenpak is offered by power companies as an alternative to reticulated electricity.

Essex have just installed a 5kW solar array on the roof of their factory which supplies all the power they need and feeds any extra into the grid, for which they get paid. This installation is a pilot project to develop experience with small generators of solar energy in the grid system.

QUEENSLAND

At Mount Coolum, Peter Fries lives at 'Solar One', the first house in Australia to have its power supply connected to the grid. With two years experience, Peter says the whole set-up is very simple and very successful. Monitoring the system for that length of time has produced heaps of data for anyone to use and there are no problems with the power company. The Fries system is 1.3kW at peak load, but Peter's house has been designed to have a peak load of only 0.5kW, much less than a normal house. This has been achieved with common sense design rather than anything unusual or hi-tech.

WESTERN AUSTRALIA

Kalbarri is a holiday resort and fishing town 500 kilometres north of Perth. It is at the end of a 136 kilometre transmission line and supply is prone to fluctuations, especially in summer when tourists flood into the town and put high demands on the system, mainly from the use of air conditioners. To help smooth out the voltage and feed power into the

grid at times of high demand, a 256 panel photovoltaic system was installed. These panels are on 16 single-axis trackers which follow the path of the sun across the sky, and in the evening move back into position to catch the morning sun again next day. The installation can deliver 20kW, depending on weather conditions, and delivers this when demand is highest, during the heat of the day.

THE FUTURE ON OUR DOORSTEP

There are definite indications that the green vote is starting to have some bite in Australia. Change comes from unexpected directions at times, and in this instance it is gathering momentum from restructuring in the energy industry.

We are going to see more solar panels appear on house and factory roofs as progressive individuals create their own power independence and reduce pollution. We have known this is the sensible way to go to save the planet, it is now starting to happen.

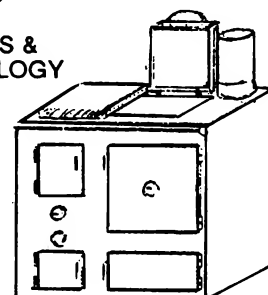
There are other renewable sources of energy available in Australia - wind, water and biomass. All are in use today in a private capacity, feeding power into the grid for the wholistic benefit of the consumer. Solar energy, however, is the only technology where individuals can easily afford to invest to generate power for themselves and others, and where the investment can be increased in easy steps. In future issues of *Grass Roots*, we will show how these other sources of power are used to produce electricity which is fed into the grid to reduce greenhouse gases. It is up to the individual, however, to create a demand for green power. You can support this movement by requesting your power supplier include power from renewable sources, to have this monitored by an independent body, and then use only that power in the household.

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CREEPY CRAWLIES

by Susan Hands, Innisfail, Qld.

I know I've said before that I think our area is paradise, still for those thinking of migrating in this direction or those intending to come our way on holiday, I'd like to point out a few of our troublesome pests – and what to do when you encounter the creatures.

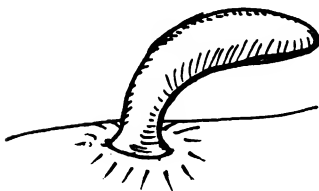
LEECHES

The leech is particularly troublesome to humans and animals during wet weather, which obviously covers a good percentage of the year, and anyone bushwalking is going to encounter the little creature.

Reproduction is by means of eggs laid in cocoons in the ground, several young leeches developing within each cocoon. Once up and wriggling, the leeches, by means of a posterior sucker, wait upon the tops of grass, leaves or stems. At the approach of a warm blooded animal, which they speedily detect, they move in – fast. Once on the 'host', they are extremely persistent, working their way through clothing or lace holes in boots. The bite is usually painless and may remain undetected until indicated by a stream of blood. However, sometimes they itch from the first bite. When gorged with blood the leech drops to the ground. If you discover a leech on your leg, or wherever, you shouldn't just pull it off, as portions of their mouth parts are liable to be left in the wound giving rise to inflammation and possible infection. Just give them a touch up with vinegar, salt, insecticide, or a lit match. The wound should be dressed with an antiseptic because of the anticoagulant inserted into the wound which can cause



leech showing suckers



leech engorged on someone's arm (or leg)
to same scale

itching and infection. Try not to scratch the wound – and that's no easy feat.

Leeches are around most of the time on the edge of creeks and in damp leaf mould, but they reach plague proportions the moment it rains. Smearing your legs and arms with any of the prepared insecticides will ward off the creatures, though if you're wearing boots and long pants to be safest you should rub the stuff on the clothing as well. Other less touchy products to use are aromatic oil, citrus juice, Vaseline, even mud. However, anything that comes off with sweat has to be continually replaced.

TICKS



tick



tick engorged

to same scale

Ticks spread diseases and they are, from an economic point of view, a far more serious pest than any of the other Australian venomous creatures, including the snake. Cattle ticks and dog ticks wreak havoc in our animal population, but as far as we humans and our pets are concerned it's the scrub tick/shell-back (*Ixodes holocyclus*) that causes most trauma.

The scrub tick needs three hosts during its life cycle. The 'seed' or larval form, generally no bigger than the spot from a biro, climbs onto a mammal. If undisturbed it drops back onto the ground when full and moults. Now as a nymph, it climbs back onto a host usually from the tip of a grass stalk. Again it drinks its fill and drops off. As an adult it has venom and salivary glands which can inject toxins into the host on which it is feeding. This can cause severe allergic reaction, paralysis and even death.

The tick season begins around July (the dry) and continues right through to the first heavy rains. In our area bandicoots are the main hosts. When you see bandicoot holes in your lawn or garden then you know the scrub tick will be about. The bandicoots are immune to

the toxin but your cat, dog and self are not.

The signs to note are unusual listlessness in your animal, they develop a temperature and after a couple of days they can start to become paralysed, often collapsing in the rear quarters. The pupils of the eyes become enlarged and the tongue will protrude. Sometimes dogs develop a husky cough.

On a human, ticks are usually discovered as an itchy lump on the skin anywhere they can get some leverage to help dig in – just beneath the waistband of clothing, or any other band such as a sleeve, a crevice in the body, on the back of the head during the night while you sleep, even behind your earring.

It is not wise to pull off a firmly attached adult tick. Often the head will break off and remain in the wound, or the tick will inject a final spurt of toxin. Dot a little pyrethrum onto the creature, then after an hour or so check to see if the tick is dead. Sometimes the thought that the tick is still on you is terribly hard to bear, but it is best if you can leave it there until it is dead. Remove the dead tick.

Obviously, if you have a number of secondary problems, swelling of glands, crazy itching, temperature, you must see a doctor. I have seen people with hugely swollen necks after a tick has bitten them in the ear/head area.

SCRUB ITCH

This is a tiny mite that, like duck lice and scabies, buries itself beneath the skin. It is not usually detected until twenty-four hours later, and then by a madly itching red lump, or if you're extremely unlucky, by a number of madly itching red lumps. Like the scrub tick, this mite likes to use leverage to bury itself, so the areas usually attacked are under arms, behind knees, in the pelvic region.

We have noted that the most likely time to catch 'scrub itch' is during the dry season and by sitting on logs or stones in the rainforest or on the edge of creeks.

When I was a child scrub itch was considered a bit of a horror, nowadays you can buy a number of preparations

from the chemist to kill the mite while it is still under your skin. For example any head lice treatment will kill the mite.

Once again the methods of preventing scrub itch are to cover yourself and coat any exposed areas with Vaseline or insecticide. I have been told that baby oil will also prevent them getting a bite-hold.

MARCH FLIES

March flies come in different varieties and sizes; take it from me though, all varieties are a positive pest to both man and animal. Cats will run into the house and dogs hide when the March flies are at their worst, yet I've also seen dogs that snap up the fly wherever it might land - on the dog's foot, a blade of grass, your leg.

If you're wondering how to recognize a March fly, it's rather squarish looking for a fly, but don't worry, just stand next to a creek anytime during the summer and before two minutes are up you'll be able to recognize March flies, they'll be the ones biting you. One plus is that most of the little blighters announce their presence by loud buzzing. Still they usually alight softly and unless you're watching, the fangs

are the next thing you'll notice.

Because they have a bite that cannot be ignored, the March fly can be a terrific nuisance as well as an actual danger if, for example, you are driving, so don't leave your car windows down when in a March fly region.

For some reason dark clothing always attracts the fly. A person wearing a dark blue shirt will have flies continually landing on his shirt where they might almost ignore a person in a white shirt.

So if you're coming for a stroll in our lovely national parks then cover up, that's the surest way to avoid creepy crawlies.

RED LEGGED EARTH MITE

Red legged earth mite particularly attacks beans and cucumbers. Foliage becomes webbed, with brown dry patches. These grow until the whole leaf is grey. To protect seedlings from red legged earth mite, spray a solution of one part milk to nine parts water. The fat in the milk forms a waxy layer which the mite does not like. Repeat spraying after each rain or every three to four days.



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The diagnosis and treatment of children, and an increasing number of adults, with Attention Deficit Disorder is a controversial subject. Parents are seeking practical strategies to help cope with a problem that causes much stress to the entire family, but are often reluctant to resort to medication. In the first of two articles, a reader outlines the strategies that worked for her sons, based on a combination of medication and building of self-esteem.

CLIMBING A MOUNTAIN NAMED ADHD

by Deborah Strong, Wangaratta, Vic.

Life with my two sons, Jack, then aged twelve and Daniel, then aged seven, was becoming increasingly difficult. Jack was bringing home school reports that said 'doesn't try', 'is lazy', 'has failed to complete half the assessment tasks', 'talks out of turn', 'speaks before thinking, makes stupid comments'. I dreaded parent-teacher interviews as I was made to feel responsible for Jack's lack of performance and was asked to make sure that Jack completed his work. It was suggested that I teach him to curb his temper and change his bad attitude.

Daniel's school reports highlighted the fact that he was not grasping the concepts of reading, spelling and maths, that he had low self-esteem and was so withdrawn in class that 'he may as well not be there'. The school had no facilities for extra assistance for him, they didn't really know what to do and suggested that I do extra work with him at home after school. My boys were miserable, I was feeling like I was an inadequate parent and the schools had virtually said that they could do no more – it was up to us.

As I am a retired primary school teacher, I endeavoured to try again to help the boys catch up. Jack, however, refused to co-operate. He never brought home the right books to do his homework; he had no idea when assessment tasks were due; his folders were totally disorganised; he became resentful that I was 'nagging' and angry that he had to do homework when he would much rather be watching TV or riding his bike. Daniel's work improved with one-to-one attention at home, but we were constantly frustrated that what was learnt today was forgotten tomorrow, and his teacher could see no improvement. He was aggressive in the playground, depressed at home and paranoid over many things. He often said that the kids laughed at his socks, his lunch, even his grandmother's car. He was over-sensitive to any comment.

Time passed without any improvement. I tried reward systems, checklists, diary entries to help Jack to be organised, and had regular contact with the schools. I tried eliminating sugar, colourings, flavours, preservatives and dairy products from our diet. All these things worked for a while, but gradually the boys slipped further behind and their behaviour became more unacceptable, particularly in Jack's case. By the time he was nearly fourteen he was regularly flying into violent rages, running away from home, stealing, lying and playing dangerous games with petrol and matches.

Then one day a friend gave me a copy of the late Dr Gordon Serfontein's book *The Hidden Handicap*. I read it from cover to cover and wept while I read. At last, the pieces of the jigsaw puzzle fell into place. The book described Jack's unsettled state as a baby, how he cried and slept little for the first six months of his life, how he began to crawl at five months and has been very active since. It described the boys' inability to concentrate in class yet their ability to play computer games or watch TV with intense concentration for hours. It described Daniel's speech problems and the way his words came out jumbled up and his written words had letter reversals. It explained Jack's 'short fuse' and Daniel's depression, paranoia and low self-concept. It described Jack's inability to ever finish a project, whether a school assignment or a hobby at home; and Daniel's painful slowness in getting ready for school in the morning. It described how Jack acted on impulse and how both boys were expert naggers, wanting things now and not taking no for an answer. It explained Jack's difficulty in falling asleep, his sleep walking and night terrors and his early waking; and Daniel's restless sleep, waking unrested and in a bad mood with a wet bed. It also said what I had always known, but had not been able to reconcile with their lack of achievement, that my boys are intelligent, creative, determined and

have the potential to do great things.

The book described the condition of Attention Deficit Hyperactivity Disorder and between them my boys had every characteristic of the disorder. I couldn't believe that I or the schools had not known this before.

Immediately there was a lessening of the tension in our family. When I explained to the boys that their difficulties were caused by a chemical imbalance, they felt great relief that they were not 'stupid'. It did take many months of hard work though to build their self-esteem, as they had both been told by others that they were 'dumb', and they believed it. I was able to view their behaviour in a different light knowing that, to a certain extent, they couldn't control it and were not just doing things to annoy me.

We decided to go 'mountain climbing' together, the mountain being the challenge for us to meet and to overcome the difficulties caused by having ADHD. We are taking many people on the climb with us: the teachers, paediatrician, occupational therapist, psychologist, family, friends and members of the ADD Support Group. There are some days when I have to carry both boys on the climb, other days when one of us falls from a cliff and dangles precariously until rescued! Sometimes we have to retreat to a safer place on the mountain until we have the strength to try again. Occasionally Jack leaves the mountain altogether (by helicopter, he says), but so far he has always returned to continue the climb.

For us, this visual imagery keeps us going. We live by the 4Rs – routine, regularity and reinforcement. The fourth 'R' for us is Ritalin. Jack and Daniel have been taking this medication for twelve months now. This allows the boys to focus better to enable the other strategies to work. Jack is better organised with his schoolwork and is attaining 'A's, when before he couldn't be bothered even completing the work. He is

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easier to live with and does not run away from home anymore. Daniel has now learnt to read and spell. It is as though his brain has been unscrambled. His teacher, who was sceptical at first, sees the improvement in his written work. 'I don't have to get Daniel to interpret his stories anymore, he gets his quota of spelling words right every week, he's advanced from quota 2 to 18 in six months, and last week he spelt 'competitive' correctly when last year he couldn't spell 'and'. He is happy at school, and though a little too quiet, pays attention all the time.'

Success is easier for Daniel, as the management of his disorder has commenced at a younger age. Jack still displays some of the behaviours that are firmly entrenched and gives us all some pain at times. I can, however, look more optimistically towards the future than I could twelve months ago; I only wish I had known sooner.

Some people say that medication brings our high flyers down to the level of mediocrity. I look at Jack and Daniel and see that without it, they wouldn't be happily mountain climbing, they'd still be running around in circles denying the existence of a mountain.

DO'S & DON'TS

- Do come to terms with the fact that your child is disabled and that there are some things that he/she may never be able to do well. Jack, for example, has difficulties in coping with large social gatherings, so we plan coping strategies beforehand, and I expect some unsettled behaviour afterwards.
- Do build on the strengths that your child has. The stubbornness that can be so difficult to live with can be utilised into an enormous strength of will to attain positive outcomes.
- Don't expect to be able to give up routine. The way for my boys to cope is to ensure a rigid routine for everyday tasks. At the moment I have to maintain that structure (If I don't, there's chaos!), but I am hoping the habits will begin to stick.
- Don't be afraid of communicating your concerns to your child's teacher. They often don't realise the complexity of ADD, and certainly don't see all the facets of the child's life and behaviour like you do. I was accused of being a neurotic mother because I knew things weren't quite right with my boys.
- Do look after yourself. Living with a

child with ADD (and because it is thought to be genetically linked, often the father has it too) is exhausting. Plan for some beneficial time out to do what you want.

RESOURCES

Books to read:

The Hidden Handicap and ADD in Adults, by Dr Gordon Serfontein, Simon & Schuster.

Understanding ADD, by Dr Chris Green and Dr Kit Chee, Doubleday.

Kids, Families and Chaos. Living With Attention Deficit Disorder, by Dr Harry Nash, Ed Med.

Different Kids, by Sue Dengate, Random House.

Smart But Feeling Dumb, by Harold N Levinson, Warner Books.

Support Groups:

Enquire through your local Citizens Advice Bureau or contact the following for the address of your nearest support group:

The Learning Disabilities Coalition of NSW,

PO Box 580, Sutherland 2232.

Ph: 02-542-3390, fax: 02-545-1585.

Active Inc,

Ross House, 247-251 Flinders Lane, Melbourne 3000.

Ph: 03-9650-2570.

Canberra & Queanbeyan ADD Support, PO Box 53, Duffy 2611.

Ph: 062-883-645.

Newcastle-Hunter ADD Support Group, PO Box 374, Cardiff 2285.

Ph: 049-533-395, fax: 049-516-513.

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PO Box 1675, Tamworth 2340.

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PO Box 85, Paraph 0820.

Ph: 089-812-444.

ADD Southside Support Group,

174 Johnson Rd, Hillcrest 4118.

Ph: 07-800-3957.

ADD Support Group Tasmania,

PO Box 514, Ulverstone 7315.

Ph: 004-293-240.

ADDSA Neurological Resource Centre, 37 Woodville Rd, Woodville 5011.

Ph: 08-268-6222.

LADS,

Chidley Education Centre, Mosman Park 6012. Ph: 09-385-1065.

Next issue a reader presents a different, but complementary, management strategy for ADHD.

CANDLE LANTERNS

by Bob Hollis, Mackay, Qld.

How would you like a source of light that costs around three cents an hour, is totally independent of the petrochemical industry or any power grid, its energy source will not spill, evaporate or deteriorate with age, is nonvolatile and can be renewed using cottage industry craft techniques without exploiting any natural resource or any group of people?

This light source will not spill volatile liquid and burst into flame if overturned and will turn itself off at a predictable time. You can make these lamps yourself in a vast variety of styles ranging from the strictly utilitarian to the delightfully decorative.

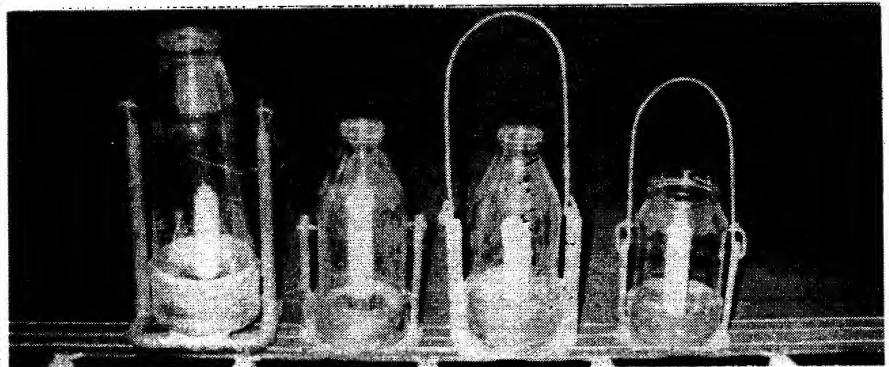
I expect you think this sounds too good to be true. Not at all. I am simply describing a candle lantern. Yes, they do have limitations. A single lantern is only one candle power and they do have to be lit manually, but nothing is perfect in this world and kero and gas lamps have the same limitations plus the negatives of volatility and the dependency on big business to provide the fuel.

The method of making these lamps can be as simple or as complicated as you wish. Because they have been around for so long I don't think that anyone could claim to have invented them. I began making them for myself because I wanted a safe, simple, cheap, lantern to use on my small sailing boat. I have been using them for about ten years now and I find them perfect for the use I put them to.

I used to make them using a milk bottle for a chimney and brass and copper for the frame. I use brass and copper because it does not affect the compass of my boat and I have sailed in winds of at least force five (19-25 knots) with the lamp working like a charm. Flickering madly, yes, but still doing its job.

At night, with the anchor dug well in and my lovely little boat secure, I can rest with a good book and a glass of something pleasant, and I can read and nod off knowing that by using half a candle my lamp will extinguish itself within around three hours of having been lit.

Well, that's enough propaganda. If you would like to make a lantern here is a method using easily obtained materials. All these materials are nonferrous



A variety of different shaped candle lanterns. With no moving parts and nonferrous metal they will probably outlast their maker.

so they will not rust or affect a boat's compass. There is no rule that states your lamp must be nonferrous. So long as you stick to a few simple principles you can make a candle lamp out of just about anything you like.

Have you ever noticed that whenever someone states that there are a 'few rules' you suddenly find yourself looking at a ten-page manual? Well not this time. There are only three basic requirements for a candle lantern. They are:

- A transparent chimney, or wind shield.
- A stable frame or base.
- Allowance for plenty of air to enter, preferably around the base, to support the flame.

That's it! The rest is up to your imagination. Here is how I make mine.

TOOLS AND MATERIALS

- tin snips
- piece of heavy metal drain pipe to use as a mandrel
- hammer
- flat dresser
- seaming tool
- scratch gauge
- piece of angle iron

For those who feel daunted... do not be. A flat dresser can be a lump of hard wood or a piece of flat mild steel bent to shape.

A scratch gauge is simply a scrap of tin or flat metal cut to produce a uniform scratched line on metal. The one you will need to make has two cuts. They measure 7 and 15 mm, respectively. The scratch gauge is made to suit the size seam you want. A $\frac{3}{8}$ " or 9 mm is just right for this job, and it will suit the

seaming tool described below, but it is not a critical measurement. Make your scratch gauge to suit your seaming tool.

A seaming tool is a tool which forms the lock seam which is seen on galvanised downpiping. You could manage without it, but if you can pick one up at a flea market or borrow one from a plumber or tinsmith, so much the better. A $\frac{3}{4}$ " or 9 mm is a good size.

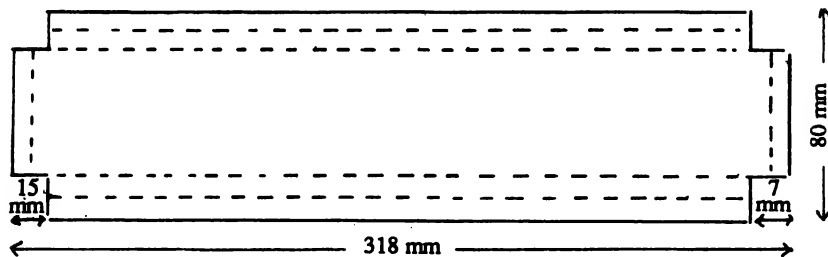
The angle iron is merely a firm, straight edge to bend your material over: the edge of a truck tray, a trailer towbar, the frame of a windmill. Look around you, angle iron abounds.

A mandrel is simply a hard object used as an anvil to shape or dress metal. A piece of old $1\frac{1}{4}$ " waste pipe and a piece of old 2" waste pipe will be ideal for this exercise. Anyone who tries can find these pipes. They are the old Imperial-sized waste pipes used under hand basins and kitchen sinks in the days when one did not risk prosecution for using words like 'chairman', or 'dear, little old lady'.

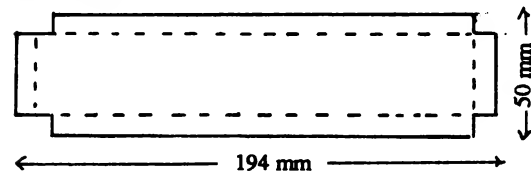
So much for the tools. Here are the materials you will have to gather.

- 4 pieces of 12 mm copper tube 25 mm long.
- 2 pieces 93 mm long.
- 2 pieces 200 mm long.
- 4 of 12 mm SE Yorkway elbows.
- 2 of 12 mm Yorkway tees.
- One piece of 19 mm copper tube to hold the candle. This either needs to be expanded at one end, or, alternatively, you can buy a 19 mm Yorkway socket, or coupling, to fit on one end.
- One flat piece of copper sheeting (26# or 24#) which will measure 318 x 80

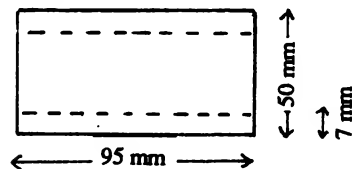
Chimney Holder



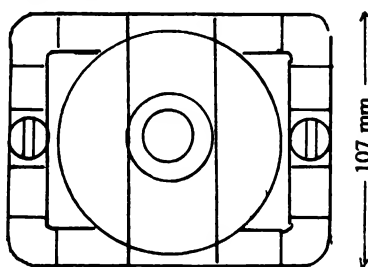
Wax Catcher



Bridge



Plan View



mm. This will form the chimney holder.

- Another piece of copper sheet, 194 x 50 mm. This will form the spent wax catcher.

- One other piece of copper sheet 95 x 50 mm which will make up the bridge which holds both the chimney and the melted wax catcher.

- A length of 8# copper wire for a handle. This will be about 470 mm long.

- An empty milk bottle, a pickle jar or a V8 (vegetable juice) bottle to use as a chimney. All the measurements in this article are for a V8 bottle.

- A source of heat to solder or braze these components together. Since I have an oxyacetylene torch, I silver-solder mine, but soft solder would do just as well.

PROCEDURE

Mark out all the copper sheeting and cut to the size and shapes given in the drawings. Dotted lines denote a fold.

Put two folds (a double fold, top and bottom: see sketch) on the biggest piece of copper sheet. These folds will form a firm belt, top and bottom of the chimney holder. They will form a safe edge so that you will never cut yourself on the lamp and they also stiffen the whole thing nicely.

After forming these safety edges fold, or form, both the seam folds. One must go up, the other must go down (see



A double fold looks like this.

sketch on the plan). When the material is bent around the mandrel into an open cylinder these folds will lock into each other like an ice skater's finger grip.

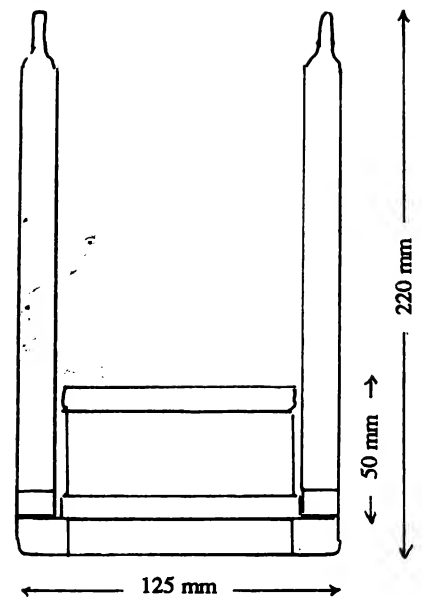
Now, lock the mandrel in a vice and bend your safety edged sheeting around it, freehand, to form an open ended cylinder. Don't worry if it looks somewhat wonky. Lock the seam folds together and gently press them closed. Use the seaming tool to lock them tight. If you haven't been able to get your hands on a seaming tool, don't worry. Simply use the edge of a chisel to pinch the metal down on the aft edge of the seam (see drawing of what your seam should look like). To get the rough circle of copper looking like it just came out of a factory, rotate it on the mandrel beating gently along its length to get rid of the rough edges. (Sounds a bit like the process of life, doesn't it?)



This is what your seam will look like.

Note that the copper will 'work harden' the more you handle it. The good news is that all you have to do to soften it and make it do your will, is to heat it to a bright cherry red and either quench it or let it cool.

Side View



Use the same technique to make the melted wax catcher. You will only need a single fold for this item.

Take the last piece of copper sheet left. The bit that measures 95 x 70 mm and put a fold on both sides. This will stiffen it and give it a safe edge. This will be your bridge.

Now join all the copper tubing as shown in the photograph. Either silver or soft soldering them together. You will end up with a square base of tubing with two 200 mm vertical tubes. These uprights will both take the wire handle and act as support and protection for the chimney.

Solder the bridge to the copper tube base. It is important that this is fixed to the top of the tube. This will allow plenty of oxygen to nourish the flame.

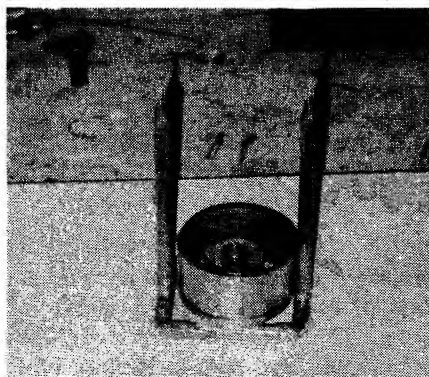
Solder the 19 mm copper tube upright in the centre of the bridge. This will hold the candle.

Solder the wax catcher to the bridge. It will have the candle holder in its centre.

Solder the chimney holder outside of all of these.

Flatten the ends of the upright copper tubes in a vice and drill holes in the flattened sections to take the wire handle.

Cut the bottom out of your bottle and sand the sharp edge smooth. Wind one or two layers (or as many as necessary to make a snug fit) of masking or packaging tape to the bottom of the bottle



Candle lantern under construction, showing copper tubing joined and wax catcher soldered to bridge.

where it will fit in the copper holder.

If you make your lanterns to fit a specific bottle allow plenty of room for the glass to expand. That's what the masking tape on the bottom of the bottle is for. A bottle is a very carefully engineered object and when you cut the bottom off you destroy a lot of its strength. If you make the holder a tight fit around the bottle the glass will crack as it warms up.

The best way to measure the circumference of the bottle is with a soft dress-maker's tape and then add a safety margin of one to two percent. Better a trifle loose than a trifle tight. The masking or packaging tape will form a good buffer and stop any rattling. For a V8 vegetable juice bottle with a circumference of 293 mm I would advise adding three or even four millimetres, plus your allowance for the seam.

COST

What does all this cost? Approximately \$9 for the copper tube and fittings and around \$5 for the copper sheet. Say \$15, if you have to buy everything over the counter. If you know of a plumber or sheetmetal shop nearby, you may be able to get the materials (except for the tees and elbows) from their scrap bin. A six-pack often works wonders as a form of barter and goodwill. If you do locate a plumber's scrap bin, see if you can find an old copper or brass flush pipe in it. A 40 mm section makes an excellent wax catcher and saves you the labour of making that item out of sheet copper.

USING THE LAMP

If you have been able to follow the plan, by now you should have your lamp sitting in front of you. Fit a candle, light it, lower the glass chimney into place and sit back feeling pleased with yourself. You now own a unique lamp that will still be useful when your grandchildren are old. Nonferrous articles with no moving parts tend to have a long, long life.

I have found that the only tricky bit is cutting the bottoms out of the bottles. Over the years I have tried many methods, but all of them have a high attrition rate on bottles. I once had a patent bottle cutter that was magic. Alas! I loaned it and never saw it again. If anyone knows where I can buy one I would be very grateful for the information. A reverse charge phone call to Bob Hollis 079-423-611 would be very welcome.

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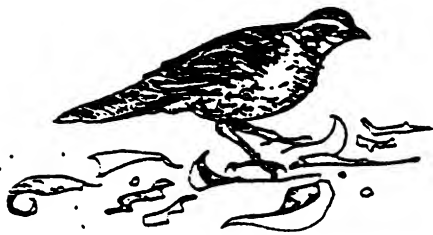
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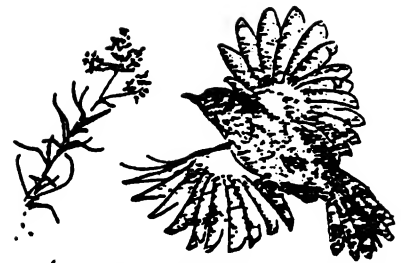
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BIRDS ON FARMS



How many different kinds of birds are there on your farm? Did you know that birds are considered to be good indicators of the health of a farm? If many different kinds of birds occur regularly, it is likely that there is a good balance between farm production and protecting the natural environment. In these hard times, when farmers battle against decreasing returns for their produce, it is easy to dismiss native plants and animals as being a low priority concern. While this is understandable, it has disastrous consequences for the environment.

The goal of the National Decade of Landcare is to achieve sustainable land use by the year 2000. Halfway through this ten year plan, our knowledge of the causes of land degradation has greatly improved. However, we have not managed to halt the degradation process and many bird species continue to decline in rural areas throughout Australia.

The presence of a rich diversity of

bird species on a farm indicates that most of the local plants and animals are also present. That is why birds are sometimes referred to as 'indicator species'. I'm sure most people would agree that to lose our native species is to lose a large part of our identity as Australians.

Birds, as well as many other native species, play an important role as biological controls for pest species. In many areas it is likely that farm trees will become unhealthy and die if there are no native birds to harvest leaf-eating insects. Currently enormous resources are being directed towards planting trees to reverse rural degradation. However, this is false economy if the processes that cause healthy adult trees to die are not halted.

The Royal Australasian Ornithologists Union is setting up a Birds on Farms survey. The primary aim of the

project is to examine the degree of success of revegetation programmes in bringing birds back into rural areas. The project will also help to identify bird species which are declining as a result of current land management practices, and indicate how these species may be conserved in rural areas. Volunteers are needed to 'adopt a farm' and survey birds once or twice each season for one to three years. If landholders would like to be involved but do not have time to survey birds, they may be happy for a few (one to four) bird watchers to visit their properties regularly to conduct the surveys. Initially the project will focus on north-east Victoria, however, the project will be expanded to a national scale in 1996.

If you would like to volunteer your avian skills, offer your farm for the survey, or you are simply interested in further information, please contact Geoff Barratt at the RAOU Head Office, 415 Riversdale Rd, Hawthorn East, Vic, 3123. Ph: 03-9882-2622, fax: 03-9882-2677.

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PLANTS AND HERBS BENEFICIAL TO ANIMALS

by Dorothy Creevey, Old Bonalbo, NSW.

Most grazing pastures these days consist of only a handful of species. I believe animals need as much variety in their diet as we do. They seem to know instinctively what they need to stay healthy if there is a large enough variety available for them to choose from. A good way to incorporate some of these into an existing pasture would be to establish them under a windbreak (if it isn't too shady). Fence off a corner or double fence an existing fenceline and plant a hedgerow. It would give the perennials time to establish and for the annuals to naturalise by self-seeding.

Another way would be to plant out a small paddock with herbs and other pasture grasses and use this for limited grazing or as a hospital paddock. Your animals may not eat a lot of them, but they will be available when necessary. When planting any plant always bear in mind its preferred growing conditions and possible invasiveness.

Obviously these herbs have many more benefits than those mentioned, both to animals and soils. Here is a small selection of some of the more common plants available.

COMMON BENEFICIAL PLANTS

Alfalfa (Lucerne)

- Good fodder for all animals and poultry in moderation.
- In excess it can cause bloat.
- Rich in nitrates and vitamins.
- Cleanses kidneys.

Anise

- Good for digestion and colic.
- Phosphorus.

Asparagus

- Horses and cattle
- May diminish milk yield though.
- Iodine, iron, phosphorus, silicon.
- Good for kidney and bladder problems.

Balm - lemon

- Increases milk supply.
- Calmative.

Borage

- Increases milk supply of all animals.
- Potassium.
- Good for the respiratory system.

Chickweed

- Tonic for all birds.
- Copper, phosphorus.
- Good for the stomach.

Caraway

- Feed supplement.
- Increases milk supply.

Chicory

- Excellent fodder.
- Good for cows, sheep, horses and ducks.
- Calcium, copper, iron.

Chives

- Great for poultry, especially turkeys.
- Worm removal

Cleavers

- Strengthens eggshells.
- Rich in minerals.
- Especially good for poultry
- Calcium, copper, iodine, silicon, sodium.

Clover

- Excess can cause bloat.
- Sodium.

Comfrey

- Fodder.
- Chlorine, iron, potassium, sodium.
- Good for the bones.

Dandelion

- Especially for goats.
- Calcium, copper, iron, magnesium, potassium, silicon.

Dill

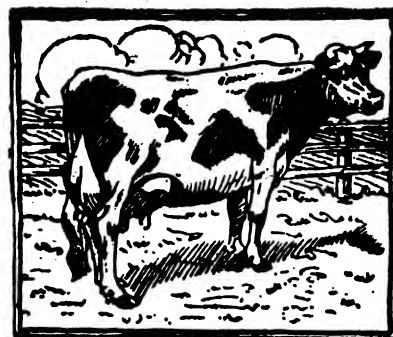
- Increases milk.
- Phosphorus, sodium.

Fennel

- Increases milk supply.
- Don't let cattle gorge themselves on it.
- Worms, colic.
- Copper, potassium, sodium, sulphur.



GRASS 33 ROOTS



Fenugreek

- Very tonic.
- Highly rich in vitamins.
- Calcium, phosphorus.

Garlic

- All worms including liver fluke.
- Copper, flourine, iodine, sodium, sulphur.
- Antibiotic.
- May flavour the milk.

Honeysuckle

- Goat tonic.
- Worms.
- Potassium.

Hyssop

- Worms.

Lemon

- Worms.

Lettuce

- Increases milk.

Marigold

- Sheep, goats and horses.
- Phosphorus, sulphur.
- Good for the heart.

Marjoram

- Goats and sheep.
- Good for colic.

Mint

- All grazing animals.
- Bulls and stallions.
- May decrease the milk flow.

Mulberry

- Worms.

Mustard

- All animals.
- Worms.



Nasturtium

- All animals and poultry.
- Worms.

Parsley

- Sheep and goats.
- Improves milk yield.
- Iron, copper.
- Good for the kidneys.

Rosemary

- Sheep and goats.

Sage

- Increases milk supply.

Salad Burnett

- Cows and sheep.
- Very nutritious.

St Johns Wort

- Cattle, goats and sheep.
- Worms.

Plantain

- Sheep, goats and poultry.
- Calcium, potassium, sulphur.

Purslane

- Fodder.

Roses

- All animals enjoy.
- Iron, magnesium, vitamin C.

Sheep Sorrel

- Grazing animals.

Shepherds Purse

- All animals and poultry.

Sorrel

- All animals.
- Calcium, copper, phosphorus.

Strawberry

- Sheep, goats and racehorses.
- Iron, silicon.

Thyme

- Worms.

Watercress

- All animals.
- Increases milk yield.
- Calcium, flourine, iron, phosphorus, sulphur.

Willow


- Cattle, horses and goats.
- Calcium.

Wormwood

- Horses, cows and sheep.
- Worms.
- Iron, potassium.

Yarrow

- Sheep.
- Copper.



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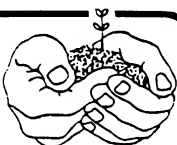
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MOLASSES

I refer to this column in GR 110 in which Pat Coleby replied to a query from Melissa regarding goat nutrition. While I do not claim to have Pat Coleby's knowledge of animal nutrition, I feel I must address the sentence in the last paragraph, 'Molasses is not etc, etc'. Living in an area which is experiencing the worst drought in memory and where molasses plays such a large part in the survival of livestock, I disagree with this statement. You just cannot compare farming in Britain with farming in Australia. In a large part of Queensland's beef and dairy cattle areas, molasses makes up a large portion of stock food and in the drought areas is the basis of a meal/grain mix, the molasses providing energy. It is also the base ingredient of supplementary sheep and cattle protein blocks. Thousands of tonnes of molasses go to the southern states each year for stock feed.

Lyn Grimes,
GAYNDAH 4625.

FLEA RINSE

Our old dog always seems to be bothered with fleas in summer but two practices we follow have brought success and other GR readers might like to know them. We sprinkle brewers yeast on her food every other day and about once a fortnight apply a herbal flea rinse to her after a light wetting down. We make the rinse from about 125 g of dried rosemary that has been allowed to stand and cool in 1 lt of boiling water. We also spray this around the dog basket on the verandah and around favourite sleeping spots in the garden. Enjoy this page and of course, the rest of GR.

Meredith McLean,
MALENY 4552.

RAISING GUINEAS

Received GR 112 today, and may be able to help with some queries. To O F of Bathurst: I raised guineas for a number of years, and lost only three to snakes. I always included, for the first 3-4 weeks, mashed hard-boiled eggs, mixed with greens, in the keets' diet. The greens I used were comfrey, pars-

ley, garlic chives, and lettuce, all finely chopped. I also included Condyl's crystals occasionally in their drinking water (helps control parasites). Just enough to make it light pink.

Are they warm enough and dry? I always used a good mother hen to raise mine. She'd take anything, anytime. Much better mothers than guinea hens.

Gayle Gower,
OGMORE 4706.

SEXING BUDGIES

Help! We're new to self-sufficiency and the GR way of living but are keen to learn. We bought the children a couple of budgies at a market recently to introduce them to 'livestock' and the responsibilities they entail, but, how do we sex them? We know budgies aren't the typical GR bird but with council bylaws restricting poultry, and our inexperience, we thought they would be fun to start with. Any hints on care? Many thanks.

Leah Churchill,
MELBOURNE.

Budgies are not difficult to sex, they can easily be differentiated by the colour of the soft, waxy area at the top of their beak, which is called the cere. Males have a blue cere while in females it is brown. Do not expect to be able to sex juvenile budgies by this method - the colours develop along with adult plumage. The juvenile birds display a pale pink-blue cere regardless of sex.

Budgies are not a demanding species to keep and a good book on cage birds should give you an overview of their requirements. Try the local library or second-hand bookshops. Points to keep in mind are that budgies are social creatures and do best with a mate for company. They will also appreciate attention from their human family. Try to provide a cage that is long rather than high, this way they have an opportunity to stretch their wings, and select the largest cage you can afford. Tiny cages provide little opportunity for birds to enjoy exercise. A couple of perches made from appropriately sized branches instead of the usual dowel are better for the birds' feet and they will enjoy picking at the bark that is left on them. As regards diet, while a good budgie seed mix is essential do not overlook the fact that these birds will enjoy a daily tidbit like apple, freshly picked chickweed, dandelion or milk thistle, or even the young shoots from silver beet. A little goes a long

way with caged birds so do not give all these at once or introduce them suddenly or diarrhoea may result. A seed ball will provide an enjoyable diversion but is generally not regarded as sufficient to sustain birds on its own. It should be provided in conjunction with a container of fresh seed. This latter should be dished out regularly, the old seed husks being thrown out at the same time. A little hard grit for gizzard function, cuttlefish for calcium, and fresh water are the other essential requirements you need to supply.

FEATHERLESS HENS

I have a problem with my small home poultry flock, the birds are White Leghorn, Black ? with a touch of Rhode Island Red. Nothing special. They lay quite well. The pen is cleaned regularly with wood shavings under perches, straw and grass hay in rest of shed. They roam in their yard. They are fed wheat, pellets, shell grit, also all the greens etc. My problem is loss of feathers, quite a number of birds are half naked. The feathers look like they are broken. They are wormed and sprayed for lice on a regular basis. Help! What is wrong, or better still, am I doing everything wrong. I have never seen this before, ever.

Graeme and Nora,
JOHNSONVILLE 3902.

Normally when hens display a lot of broken feathers and bare skin external parasites are to blame. As your management is good this possibility can be eliminated. A rooster running with a flock can also be responsible for plumage damage and bare patches on the neck and back, but as you do not mention a rooster this factor can also be discounted. Hybrids, which your hens are, can be inclined to feather pecking as a vice and, as well, they may have more brittle feathers than farmyard hens because of their high egg output. As moulting, the process whereby hens shed their old feathers for new thick ones that will protect them during the cold winter months is about to begin, you would be advised to provide extra protein in the form of mealworms in a separate container in the shed. This will enable the hens to eat the amount of protein they need and thus grow strong feathers. It is possible their genetic makeup demands more protein than is available in the diet they are receiving. A little kelp powder sprinkled on food preceding and during moulting will also facilitate strong feathers.



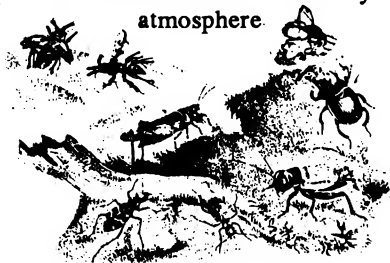
ECO NEWS

SATELLITE LAUNCH

Australia's environmental science programmes received a boost in April with the launch of a new satellite-mounted temperature sensor. Our understanding of climate and the likely impact of global warming relies on accurate measurements such as those to be supplied by the new instrument.

The sensor will supply high resolution pictures of the earth's surface giving scientists a measure of the temperature of the oceans, the distribution of clouds and the dryness and spread of vegetation. The sensor also measures sunlight reflected from the ground, providing better estimates of bushfire risk and crop yields.

The ATSR-2 (Second Along-Track Scanning Radiometer) will provide ocean temperature to an accuracy of a quarter of a degree Celsius. This precision comes from the sensor's dual view of the earth's surface. Each location is probed twice as the satellite passes overhead, once in front of the sensor and once underneath. The process eliminates most of the errors in temperature measurements caused by the atmosphere.



PEST PROLIFERATION

Climate changes caused by greenhouse gases will probably be first noticed in increased incidences of insect pests and crop diseases and a proliferation of weed growth. An international conference was hosted in Queensland in October '95 to report on the likely impacts of these changes and to develop an international programme of collaborative research. The findings will be of great interest to all farmers and gardeners, particularly those using organic methods, as the possibility is that increased pest problems will lead to a knee-jerk reaction of increased chemical use to attempt to control them.

For more information contact: Dr Bob Sutherst
07-3365-1867 (BH), 07-3379-7147 (AH).

THE HOUSE THAT POO BUILT

A pilot plant is soon to be set up by Wollongong University's Department of Civil and Mining Engineering to manufacture house bricks made up of 70% sewage sludge. The bricks are odorless and about 20% stronger and lighter than regular bricks.

Newsletter of the Society for Responsible
Design Mar/April 1995.

CARING FOR NATIVE VEGETATION

The importance of remnant vegetation was one of the most significant recognitions to emanate from the 'After Dieback!?' conference, held last September.

The conference, conducted by Greening Australia, was formulated to look at the current position regarding research management practices and solutions associated with the whole question of native vegetation loss in NSW.

It has been made clear, both at this conference and elsewhere, that there are a whole range of reasons for this loss. These include widespread removal of the original vegetation for agricultural purposes, changed soil nutrient and ground water conditions, fire regimes, salinity and introduced vegetation. These and the resultant loss of diversity and habitat, enhanced insect activity and microclimate variability, have led to stress and subsequent loss of remaining vegetation.

The whole ecological balance and harmony has been upset and any solution requires a holistic approach.

The consensus was that we are not yet in a period of 'after dieback', but many positive actions are taking place. Opportunities still exist to improve many aspects of vegetation management, rehabilitation and conservation. These include looking after remnant vegetation, reduction in land clearing and re-establishing vegetation for a wide range of environmental and economic purposes.

Following the conference, control of land clearing and endangered species protection legislation in NSW has been widely welcomed.

Conference proceedings are available from Greening Australia (NSW), phone 02-5500-720. Reprinted from *Trees and Natural Resources*, September 1995.

COMPOSTING ATOLL

In the central Pacific republic of Kiribati, the government and residents are facing up to the despoliation of valued water resources caused by poor human waste management.

Pit toilets and septic tanks are causing major contamination of ground water, but a trial of 15 composting toilets on the island of Kiritimati holds the key to a long-term solution.

The trial is being conducted by the Centre for Environmental Studies at the University of Tasmania and environmental consultancy firm, Preferred Options of Lismore, Australia, on behalf of AusAID and the Government of Kiribati. The trial began in June 1994 and was to be evaluated and assessed in October '95. This island population (2500) have no tradition of dealing with or re-using waste, or of cultivating food, but in a spin-off programme, residents are being encouraged and instructed in organic gardening to make use of the rich compost.

Contact: Leonie Crennan, Centre for Environmental Studies, University of Tasmania, GPO Box 252C, Hobart 7001, Australia.

Reprinted from *Permaculture International Journal* # 56.



REDUCING RHINOS

The most recent population estimates for Asian rhinos indicate that the average population of the three species combined (2445) is lower than the latest population estimates for the rarer of the African species, the Black rhino, *Diceros bicornis* (2545). The latest population estimates for Asian rhinos in the wild are: Indian rhino, *Rhinoceros unicornis*, 1735-2025; Javan rhino, *Rhinoceros sondaicus*, less than 100; Sumatran rhino, *Dicerorhinus sumatrensis*, 390 - 540. Over the past ten years, the population of the Sumatran rhino is reported to have declined by 50 percent. The total for all three species combined is estimated to range between 2225 and 2665.

Reproduced from *Traffic Bulletin*, Vol 14 N° 3.

FEEDBACK LINK-UP FEEDBACK

Dear GR,

Some time ago my grandmother enquired of your readers whether anyone could help her obtain **CROCHET COTTON** to finish a tablecloth she was making for my wedding. She had started it some time ago and the cotton was no longer available.

A few weeks later she received a parcel from a 'mystery' reader. The parcel was postmarked Dubbo NSW and had no return address. Enclosed was more than enough cotton to finish the cloth. As she had no idea who sent her the parcel she again wrote to GR hoping that the generous lady would read her letter of thanks (GR 108).

My grandmother spent many hours working on the cloth and although she was unwell it was finished in time for my wedding in April. Before my husband and I returned home to Cairns, a photo was taken with my grandmother and I displaying the tablecloth. Sadly, my grandmother passed away in June '95 and, unfortunately, I hadn't had the film developed. I only recently was told that she wanted to forward a copy of the photo to your magazine. As you can see, the detail and craftsmanship are absolutely wonderful.

I would also like to take the opportunity to thank the dear lady who donated the cotton. Her kind gesture not only made my grandmother very happy but also myself. A big thanks also goes to my dear grandmother for her patience and time. Although she is no longer with us I am sure that she would be feeling proud to see her finished product in print. As her eldest grandchild and the first to marry I am touched that I will always have something to treasure.

Michelle Williams (Christmas),
29 Leeuwin Cres, Centenary Park, CAIRNS 4869.



Muriel Christmas and Michelle display the tablecloth finished with cotton kindly donated by an anonymous GR reader.

Dear GR Readers,

I recently read an article by John Laws in the Sunday Telegraph in which it is stated that the NSW Minister for the Environment, Pam Allen, is seeking to have **BEEKEEPING BANNED**. If this were to happen the next logical step would be to start eradicating 'feral' bees, otherwise banning beekeeping would be pointless.

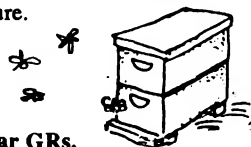
My understanding of the issue is that some of the members of the National Parks and Wildlife Service are of the opinion that honey bees compete detrimentally with native birds, animals and bees for nectar and pollen. It is also alleged that they cause damage to some native flora by chewing holes in the base of some species' flowers. Already, as a consequence of these conclusions, beekeepers can no longer obtain licences to place bees in national parks. As far as I am aware there is no scientific basis for any of these arguments.

My wife and I are planning to make the move away from the city to our 26 acre property on the mid north coast where we intend to apply permaculture principles with the aim of becoming self-sufficient. As part of this process we intend to keep bees and to this end, just this year, I have started doing an OTEN correspondence course in beekeeping.

Although I am a conservationist and environmentalist myself I believe that the banning of honey bees would serve no good purpose, would be detrimental to the Australian community, and would deny those wishing to become self-sufficient access to a valuable source of nutrition and byproducts such as beeswax.

Not only are bees extremely important in providing honey and beeswax they are absolutely necessary for the pollination of vegetable, fruit crops and other crops, without which self-sufficiency is impossible. Native bees and other insects are not capable of taking over this role.

To ensure that reason prevails I ask all those who see the misguided nature of this proposition, no matter how well intentioned it may be, to write to Pam Allen or to your local member to voice your opposition to the banning of beekeeping. Even if you don't live in NSW, I suggest you write to Pam Allen since these things once enshrined in one state have a habit of spreading to other states. Here's to a self-sufficient future.



Michael G Siddle,
4 Abuklea Rd, EPPING 2121.

Dear GRs,

I recently bought a small property in Euroa and hope to grow **MEDICINAL HERBS** with a view to making creams and ointments. I am a novice in these areas. The information I am looking for is: names of suppliers of medicinal herb seeds; any courses run on herbal medicine that include aspects of making creams and lotions.

I currently work as a teacher in Melbourne Monday to Thursday and spend Friday to Sunday in Euroa. I would be interested in meeting like-minded people in the area.



Hello!

Can anyone send me successful recipes for **LOW-SUGAR/NO SUGAR JAMS**? Do I just add more pectin so it sets, and in what quantities?

Margaret Gibbs,
PO Box 128, EUROA 3666.

Janelle Boreham,
C/- Pam's Store, TILBA TILBA 2546.

Dear Readers,

I found the following information relevant to an item in Eco News (GR 109) and thought it would be of interest to readers in setting them straight about the correct name for sleeping sickness: 'A recent report on Dr Aklilu Lemma's path-breaking work on the **AFRICAN SOAPBERRY** plant mistakenly referred to sleeping sickness as the common name for schistosomiasis. In fact, sleeping sickness is the common name for trypanosomiasis, a disease which is not snail-borne but transmitted by the tse-tse fly. Our apologies to Dr Lemma and our readers for confusing these two very different somiases.'

Martin Fitzgerald,
GLEN WAVERLEY 3150.

FEEDBACK LINK-UP FEEDBACK

Dear GRs,

I have been trying to contact CLINICLEAN LABORATORIES in Laidley Qld, to try their detergent but I cannot. In GR 109, Veneta & Leo Fitsummons wrote in with a phone number, but it is not connected. If anyone can help please contact me. Also I have found one of the best all-natural, 100% biodegradable shampoos. It is called 'Gypsy Rose' and is made by Herbcraft. Thanks for a great read.

Denise Gastaldin,
Lot 3 Mawsons Rd, BEERWAH 4519.

Dear GR Readers,

I have been drying plants for quite some time now and find it very pleasurable and quite interesting. Extending my knowledge, I have decided to experiment with a different species of plant. Could any reader kindly help me by giving me information on HOW TO DRY HYDRANGEA FLOWERS and eucalyptus leaves?

J Beery,
PO Box 636, COOMA 2630.

Dear Grass Roots and Readers,

Thank you for your informative magazine. It's wonderful to know that there are so many caring, earthy people out there. I too feel the urge very strongly to leave the big smoke and try to become more self-sufficient whilst being considerate of animals and the earth. I'd also like to be able to look after injured and unwanted animals - space and finances allowing. But it all seems so overwhelming as in how to get there.

Recently, I did a course on setting up a small farm but it left me even more confused. It wasn't what I expected and had no connection to self-sufficiency or organic practices. Others there already had properties or farms and I was horrified at being witness to conversations on shooting kangaroos and other 'pests' and 'necessary' practices such as tailing lambs. I also learned of the daunting number of regulations and rules of country living.

Now, I realise that my questions may seem ignorant to some of you experienced land people, but I need to know if and how people get around these things. Is there anyone who can answer me with ADVICE on how to be less overwhelmed by it all? (A tall order I suppose.) But more specifically, is there a way of dealing with animal 'problems' in a more peaceful way? What do animal libbers think? I'm not interested in running cattle at all but it would be great to have a few goats or a cow and perhaps some chooks and a sheep and horse. Only a few animals that can give me a hand with self-sufficiency in return for a lot of TLC. Is this possible to do without causing the animals any unnecessary stress or harm? And if I do keep animals does it mean that they will be savagely attacked by predators and is it necessary to protect them and my plants with a gun?

Is there anyone who has managed to get out to the country on a low budget? How do you do it on the cheap? And where does an absolute beginner like me acquire all the necessary skills? I haven't found much in the form of tuition in Adelaide.

If anyone can answer any of my questions, I would truly love to hear from you. I am happy to answer all letters received. Also, if anyone needs some help with their farm, projects etc (especially if anyone is building their own home) I would be more than happy to work for you in return for learning skills.

I look forward to one day writing again with perhaps a success story or at least to announce my progress from 'grass roots babyhood'. Thanks again for your wonderful magazine.

Lea Rain,
18 Westport Ave, QUEENSTOWN 5014.



To Grass Roots,

I have just read an article in a recent edition of GR and thought I would endeavour to tell you all I know of the miniature breed of pig called the KUNE KUNE.

I have a lovely black and fawn patchy young sow and she has just had her second litter of piglets. She has eight (were 10) and they range in colours and sizes. They are a lovely compact small pig with short snouts and short legs. They come in lots of colours and are very comical and friendly. Being smaller, they take more like 8-10 months to fatten but because they graze just like a cow and have no fat, apart from a ring around their neck, it makes them quite economical. We give them scraps each day as well. They are often sold as pets and graze the orchards. They are still found wild in the bush. They love a pond to wallow in.

We sold the little runt to a childless couple. He will have a lovely long life.



Lisa Alsweller,
Postal Delivery Centre,
Waimangaroa, Buller, Westland,
Sth Island, New Zealand.

Dear GR Readers,

A new form of HERBAL AND FOOD HEALING is now available, called Celestial Healing for the Planet Gaia. The remedies can all be made up utilising herbs from your garden. Most diseases are covered and this letter is to invite you to write for your free copies of the recipes. The recipes are channelled psychically and so far tests carried out have been successful. I am not Wiccan. If you are in NZ please send an A4 envelope with an 80 cent stamp; if Australian please send an international reply paid coupon. This is a special prepublishing offer. If you have health problems, please give a diagnosis in your letter so that I can send the correct booklet.

Celestial Healing can be mixed with orthodox medicine; there are some remedies which work against the side effects of allopathy. If you wish for a channelled reading as well, please ask in your letter and write down any questions you have. I do not promise a message, but if one comes to me I will write it down for you.

Claire,
120B Clarence St, Hamilton,
New Zealand.

Dear Grass Roots Readers,

Can anyone please help me locate some NZ yam tubers. Also known as MAORI POTATOES, aka, *Oxalis tuberosa*.

Barry Lyons,
PO Box 62, WALWA 3709.

The only information we could find was in 'The Third New Zealand Whole Earth Catalogue'. It referred to NZ yams grown by the Maoris in the Horowhenua, as oca, or *Oxalis crenata*. The small pink tubers should not be peeled, just rinsed before cooking in the preferred manner.

Dear Megg,

A couple of years ago Vivienne Manouge wrote an article on SPINNING MOHAIR and I wrote to you querying her use of 'S' spinning and 'Z' plying rather than the traditional 'Z' spin and 'S' ply.

This question has been in the back of my mind ever since. I recently attended the Queensland Spinners and Weavers Winter School Workshop on spinning designer yarns with Leigh Morris. One of the interesting points he brought up was this very issue. Recent research revealed that there is an internal spiral of cells within each fibre which lie in the 'S' direction. Therefore, animal fibres when spun will lie most naturally when the final twist is 'S'. Therefore it should be spun 'Z' (clockwise) and plied 'S' (anticlockwise). It was a wonderful workshop and we all learned heaps, but it was this point I was particularly delighted with. At last one of the niggling questions has been answered.

Leigh's book, *The Handspinners' Companion*, (Penfolk Publishing, Melbourne 1994) is the best book on the subject I have ever read, covering everything on fibres, yarns and dyeing, and well worth a look at, and reasonably priced at around \$20 for over 100 pages.

Helen Dawkins,
MS 1292, NANANGO 4615.

FEEDBACK LINK-UP FEEDBACK

Dear GR Readers,

Despite the lack of rain last summer our vegie patch was newly fenced and planted with many vegetables. Giant sunflowers again of course, luffas, and, this year Giant Nigerian Buschell Gourds. It was also to be the year of the pumpkin. I get a bit of a fixation on certain things each year.

The GIANT GOURDS were doing their gourd thing a couple of inches a day – I know, because I ran down to measure them every morning, but a subsequent search of the miles of pumpkin vines failed to turn up a single female flower, not to mention a pumpkin. Nothing, except the gourds, seemed to be growing with the vigour of the previous summer. Then February brought the rains regularly. Everything took off and within weeks there were pumpkins everywhere.

At the end of the season I sold some of my pumpkins to the local fruit store, and that paid for the season's roses, which I have gradually become besotted with over the last couple of years.

Not just any roses. Old-fashioned, Bourbons, Gallicas, climbing, and David Austins, which are modern, but with the appearance and beauty of the Old-fashioned. I absolutely refuse to spray them with all the junk so many books tell you to spray them with. Four cloves of garlic are planted around each rose and aphids are inspected for and picked off. So far so good. I don't spray anything else I grow, so I'm not about to start now.

I'm not sure how long the gourds take to dry. Some are getting lighter, some still weigh a tonne. The biggest measures 135centimetres around the middle.

Sunflowers were not quite as big this year. I put that down to the dry start. Luffas ended up big and plentiful. I'm just about to boil them up in my old copper. They last for years if dried properly, and are wonderful for keeping your skin smooth and healthy.

Anyone wanting luffa seeds please send an SAE and 4x45 cent stamps for 20 seeds. Please don't forget the SAE. Those of the 200 people who sent for Giant Sunflower seeds will know what it cost to send them. Sorry some of you missed out on seeds. I didn't expect so many letters. Thanks for so many lovely accompanying letters too. Thank goodness I answered every one of them except for a few stragglers which got a creaky left-handed reply after I broke my right arm in late December. Oh how much more careful I'll be in the garden, in hindsight, after 2½ months of frustration. Never mind, a lesson learned, and I'm back doing everything as before. Still hurts a bit kneading clay for pottery, but I won't let a little thing like that stop me.

We've raised two baby frog-mouthed owls and a young western grey kangaroo since I last wrote. All have returned to the wild successfully, and what a pleasure it was to have them. One last thing, as I'm sure I can hear Megg and staff groaning over the length of this letter. Jackie French's fly catcher is made from a softdrink bottle (plastic) with the top quarter cut off and inserted into the bottle with water with a bit of raw chicken or fish in the water and hang in a tree near the house or anywhere. Don't put it where you have to look at it daily as its quite pukeworthy to behold when all the flies are dead and drowned.

Please don't send for giant gourd seeds yet. All the best to everyone. Love from the chooks again.



Wilma Flintstone,
MS 582, Mt Luke Rd, GEHAM 4352.

Dear Grass Roots,

A short note to say how great your magazine is, I enjoy Down Home on the Farm most and my wife, Miz, enjoys Feedback Link-up.

I was on holidays a short while ago and came across a great little town nestled in NSW called TOWAMBA, near Eden. I would love to get to know people from there, as I am looking to buy land from there. Anyone who would like to write could send a letter. All letters will get a reply.

Bambi & Miz,
24 Driftwood Place, SWANBOURNE 6010.

Dear GR Readers,

I would like to thank everyone who wrote to me about the letter I put in GR 109. The response was fantastic, and there was some invaluable information that I received on ADD. And also the phone calls. I was overwhelmed that there are so many children and adults who are suffering from this same ailment. I have taken my son off the prescribed medication and put him on a herbal tablet called L tyrosine which is helping more than the drugs. So thank you to the lady who gave me this advice. And also we are all going on the Feingold diet. I have already started by getting rid of cordial, lollies, artificial colours, flavours and additives. We are not on it 100 percent yet but that is my aim. I have noticed the difference.

I have also got in touch with Queensland Allergy and Hyperactivity Association who have been going for 20 years and are very helpful. They are marvellous, they are a volunteer group. They send out all the info on hyperactivity, allergies etc, and foods they can and can't have. For a \$20 membership it is worthwhile.

Trish Perry,
PO Box 82, TOOGOOLOO 4313.

Dear GRs,

I would like to know if anyone has any ideas on foods to avoid and ones that are good for MILD ASTHMA SUFFERERS. Secondly, if anyone knows of any natural remedies for *Staphylococcus aureus* (spelt something like that), your normal everyday staph! Also, does anyone have any tried and proven methods on worm composting toilets (simple and cheap!)? Any information would be appreciated. Or if there are any lonely or letter-mad women out there who would like to write, please do.

Dianne,
C/- PO Box 242, EUROA 3666.

Dear Fellow Readers of Grass Roots,

Thanks to everyone who wrote with advice on PSORIASIS. We were amazed with all the letters we received, over 30. I did write some thank you letters, but please take this as thanks if I missed you. It's sad to think that some city folk don't even speak to their neighbours, yet I asked for help and received letters from all over Australia. Thanks to our extended GR family. My two daughters Kelly 11 and Tracey 9 would like penfriends their own ages. They are country girls with animals playing a large part in their lives.

Robyn Hope,
Lot 2 Hannam Vale Rd, JOHNS RIVER 2443.



Dear Grass Roots,

I discovered your magazine some five years ago and it gave me hope after going through some real rough spots. Now I read it from cover to cover in a day and can't wait for the next issue.

At the moment I live in a caravan in Brisbane, a park in the middle of suburbia. I am lucky enough to be able to garden in an area seven metres by seven metres. Here I manage to grow quite a few vegies, mixed in with flowering annuals in a totally organic system. I think of this as preparation for the 'real' thing and hope to either buy into a community or purchase a few acres and try to live self-sufficiently.

That's in the future though. Next year I am starting a naturopath course and I am currently saving to visit Europe. So till then I can garden as much as I like on my SMALL PATCH. The magazine is a constant inspiration.

At the moment I am rather isolated from similar thinking people and would love to correspond with anyone, any age, anywhere. The only thing I ask is that you be broad-minded. I am gay and have no wish to waste time writing to people who will stop once they find out. So if you would like, please drop a line and I will write back.

Jason Allen,
1497 Creek Rd, CARINA 4152.

FEEDBACK LINK-UP FEEDBACK

To the Grass Roots Readers,

After dreaming for 20 years or so it seems that our family now has a chance to put in practice many of those dreams, as at the end of 1995 after 36 years, I will be made redundant from my job. We are thinking of moving to the area at the TOP OF THE GRAMPIANS (Ararat, Stawell, etc) or thereabout, probably early in 1996. If any readers living in this area could supply us with current information about land, schools, towns, etc, we would be very grateful for such knowledge. As we have five children we will have to be within a reasonable distance from schools and towns.

The Graham Family,
13 Mirang Ave, CROYDON 3136.

Dear GR Everybody,

I have allergies to dairy products, wheat and yeast. Sour dough bread, goats' milk and cheese are okay. I was wondering if anybody has recipes that are free of these products. Also a recipe for cottage cheese and yoghurt.

If anybody has finished with GR numbers 106 & 107 I would greatly appreciate them. My partner, Anna, and myself are looking to north-east NSW or SE Queensland, 500 kilometres north or south of Brisbane, and we would like to link up with people from this area specifically, but all replies will be answered.

Ian & Anna,
3/606 Pleasant St, BALLARAT 3350.

Cookbooks for allergy sufferers are: 'Living With Allergies', Xandria Williams, 'No Milk, No Eggs', Pauline Moore, 'Healing Foods', Walter Last and 'What Can I Eat?' by Anne Clarke.

Dear GR,

In GR 109, Beyson Huddleston asked for the name of a plant that you can chew for arthritis. I have it growing and you chew two leaves per day. Its name is Gotu Kola/PENNYWORT (*Centella asiatica*). I can let you have a root of it if you send enough postage. This is my first letter for nearly two years as I have been in hospital, then was told I had leukemia, but for the past month or so I have felt extremely well because of taking natural health products, plenty of carrot juice and antioxidant tablets.

I am also happy to inform all those lovely people who keep writing and asking me when my CRAFT BOOK will be ready for sale that it was launched last month by our Premier the Hon Ray Groom. I had a good opportunity to do it while convalescing. I called it *Crafts - Old - New - Recycled*. It has 390 pages and has lots of colourful pictures. It is \$19.50 posted and is a big book.

I recycle anything and lately I have been making craft from Coca-Cola and milk bottles. My home is full of mats made from pantyhose, jumpers, gloves, shopping bags, slippers, hats, even bedspreads. People know I make articles from stockings, so they leave them at the door. I even have fans sending me parcels from other states. I make dozens of things also from bread bags and supermarket bags, such as Christmas wreaths, shopping bags, mats, coverings for bottles, (turning them into vases), coverings for ice-cream buckets, coverings for margarine containers, even the lids, that I give full of biscuits to patients in hospital.

The list of what I can do with waste is endless. I have knitted over 200 bookmarks from stockings and given them to people who order my books. I even knit-in their names. It has to be cut finely for this - about a quarter of an inch, spirally from toe to top. For the bread wrap hats, cut it half an inch width, then dust with talcum powder. You don't have to dust supermarket bags. Thanks GR for letting me share other people's wisdom and good clean reading.

Marjorie Bilgh,
163 Madden St, DEVONPORT 7310.

Dear Editors,

Appealing to GR readers for help. I read several copies of GR on my trip around Australia. I was wondering if you could put an appeal out in the letter section for me. I would like to hear from anyone who has a recipe for GLYCERINE SOAP that can be made at home

safely. Here in Zimbabwe people tend to guard their recipes jealously so I thought maybe that there would be someone in Australia who may be able to help.

Kathleen Ginn,
PO Box 44, Marondera,
Zimbabwe, AFRICA.

Dear Grass Roots,

The TOODYAY PERMACULTURE GROUP has been set in motion. A group that we hope will fulfill our aspirations for further education resources, support, stimulus and friendship. There appeared to be a need for the drawing together of like-minded people who are living and working along permaculture foundations but somewhat isolated.

Our want is to meet monthly and to develop a support system that includes working experience on individual projects and the exchange of impetus. There is most definitely a social angle too.

If anyone in the Toodyay district is interested in joining us, wanting more details or able to provide us with advice or guidance we would welcome your letters.

Sue and Mike Oakley,
PO Box 355, TOODYAY 6566.

Dear GRs,

Love your magazine! Looking for COLTSFOOT (*Tussilago farfara*) plants. Another brilliant herb that has been banned.

Raylene Florita, Herbalist,
28 Duffield Drive, POORAKA 5095.

Dear Grass Roots Readers,

If there are any GR readers who have PATTERNS FOR DOLLS and also dolls' clothing that they don't want anymore I would love to hear from them. I will pay for the post. My husband is a sick man who takes a lot of my time, so I find making dolls helps me to do something to keep me sane. We live on a block with our animals who are our family now, our children have all left home. My husband spends a lot of time sitting out on the front porch watching the wildlife. Thank you for such a fine mag. We can't wait for each one to come out. It gives us so much joy.

Laurel & Ian Blackman,
PO Box 216, CHILDERS 4660.



Dear GRs & Fellow 'Battlers',

My husband of 32 years and I have been reading *Grass Roots* around a decade or so, caretaking other people's properties and the like, working and living in mining camps, always returning to the family in Maleny on the Sunshine Coast. Now we have purchased our own acre in Paradise.

We had hoped we would not have to share it with anyone, let alone that bank, they don't share the work or the worry. But even if we never own it, it's the pleasure of living the lifestyle we have read about in GR for so many years.

We have fruit and nut trees, some we had never heard of before, one being a citrus 'Lemonade' tree, makes a lovely juice. The previous owners did not make it easy for us beginners. They were old and ill, so we did not get to talk to them. It's a good thing we didn't have a hobby before buying a 'hobby farm'. We do need an outlet to sell the abundance of fruit and nuts and we need to learn so much.

A cumquat jam recipe would be nice I have so many cumquat trees and I have never made jam before. We feel like one-of-the-family now, so I'm sure you will hear from us again.

J P & 'Robbo',
PO Box 555, BEERWAH 4519.

FEEDBACK LINK-UP FEEDBACK

Dear GRs,

In response to Robyn Hope's request in Feedback GR 109. Amway has a product out that's recommended for relief of **PSORIASIS**, called LOC (Liquid Organic Cleaner). As we also use this as a surfactant when spraying our fruit trees and cattle its uses appear to be many. Have seen several mentions of seven-year beans which sound interesting, if anyone has a few spare seeds I would like to try them.

Cheryl Tonkin,
9 High Chapparral Rd, MYOLA 4872.

Dear GR,

I am currently advertising echinacea seed for sale in your columns. The response has been slow but encouraging. I am 63 years of age, an amateur nutritionist and herbalist who, through such knowledge, was able to totally rid my system of a case of late-onset diabetes.

I now look to preventative measures such as **BOOSTING MY IMMUNE SYSTEM** against the host of diseases which can affect a person of my age. Echinacea is reasonably new to this country and the herbal companies are promoting it as an immuno-booster against influenza and the common cold. It certainly works in these areas but I believe that it is a more significant herb than that. In fact, one university in California and another in France are currently undertaking research with it in conjunction with the drug AZT for the treatment of AIDS. Mrs Grieve in her book, *A Modern Herbal*, tells of its use in about a dozen diseases, including cancer, and strangely enough, of its use as an aphrodisiac.

So, as a form of insurance, I make up a cold alcohol solution (heat destroys its valuable properties) of the whole plant and a table seasoning from the seeds I harvest. (The seasoning is more convenient.) It is simply one-quarter (by weight) of echinacea seed, one-quarter celery seed and the other two quarters of sea salt. I grind it in a food processor and have liberally used it each morning for the past two years and my cholesterol is normal.

The effect of this daily consumption of the seasoning has been as follows. I am consuming less sodium chloride and more micro-nutrients from the sea salt. A number of traumas in my personal life had left me with a tendency to depression and lack of libido. The nervine properties of the celery seed (which is another of its virtues apart from its use in the treatment of arthritis) has improved my nervous disposition. I have had no influenza or common colds and, dare I say, there are more than just stirrings down below. I have confidence that echinacea will prove to be as effective in the other areas as mentioned by Mrs Grieve.

John Woods,
Pumpkin Patch,
28 Bayfield Rd, GALSTON 2159.



Dear GR,

We knit for charity on our knitting machines and I am after **MAGAZINES AND KNITTING BOOKS** from one ply through to fourteen ply wool and cotton for Singer and Empisal knitting machines. Can anyone help us out please?

Any old books or pamphlets would be appreciated, we will pass extras on to our knitting club.

S P Sheehy,
6 Mary St, ARGENTON 2285.



Dear Grass Roots,

Great mag, it inspires me to be bush bound, once again. Though much can be accomplished in the city. I am stuck here, studying to be a naturopath, so maybe one day I'll make a big move. Firstly I would like a yummy recipe for nice thick sweet chili sauce. Reply to Bill (GR 107) re ACNE: Could try chaste tree (*Vitex agnus castus*), health

food shops, 3-5 ml per day, once in morning. Reply to Craig Russell (GR 107) re **OINTMENT BASE**: I use lanolin and beeswax. Melt, add active ingredients then let set. If using fresh or dried herbs, reduce in a small quantity of liquid then add this to lanolin mix. I'm interested in obtaining **MONARCH BUTTERFLIES**. I'd also like to correspond with anyone interested in SE-Queensland, northern NSW.

Dennize Mitchell,
33-Way Rd, Darra, BRISBANE 4076.

Dear Megg and Mary,

Arthur Frith's articles on **VEHICLE MAINTENANCE** are great. He is talking about older vehicles fitted with all drum brakes when he talks about brake fade, which he refers to as brake failure. Drum brakes do fade when they get hot, disc brakes work better the hotter they get. In my rally driving days I actually welded the front pads to white hot discs after a hectic dash down the Great Divide. The brakes didn't fade, they were working better than when I started. I don't know of a car that has been fitted with drum brakes on the front wheels for the past 20 years, trucks yes. I also doubt if you can still obtain a fluid that boils at under 500 degress Centigrade, the recommended boiling point for disc brake vehicles. The warning about the **HYDROSCOPIC NATURE OF BRAKE FLUID** however is one that should be spread at every opportunity. This is just an aside, don't print this as criticism of Arthur. Too many seem to wait on an article then write to pick faults.

You might however warn the readers that the much publicised ABS (antilock braking systems) now being fitted to cars can actually take longer to stop, particularly on a dirt road, than non-ABS brakes! The trade-off is you can still steer to hopefully avoid what you are braking for.

John Elliott,
1 Edgoose Ave, BOX HILL NORTH 3129.

Dear GR,

Can someone out there who has experimented with **TREES** advise me of types that withstand heavy frosts (-5°), burning sun (40°) and black soil? I prefer bird-attracting and/or Australian natives. As a late starter, I do not have the time to experiment, and while nurseries are helpful, they generally recommend whatever they have in stock.

Having acquired a piece of black soil, formerly a cultivation, amidst agricultural land on the Darling Downs, denuded of trees, we had to start literally at grassroots level. After one year of occupation and 1½ winters, quite a number of my 130 (so far) trees grown from seedlings have succumbed to frost, although many are nearing the two-metre height. Attempts to cover with plastic, fertiliser bags, old sheets etc, seem to fail, except in looking like a combined rubbish dump and Indian camp. To provide stakes and covering of a professional type would cost more than my pension allows. Probably cheaper to replace trees.

My main concerns that I'd love to save are *Eucalyptus torelliana*, *citridora* and *macrocarpa*; *Grevillea stenomera* and *robusta*; others I am foolishly attempting include jacaranda, Illawarra flame tree, umbrella tree, macadamia nut, crowe's ash and so on. The combination of frost and black soil appear too much for them.

On the positive side, it really is amazing what one can accomplish in just one year, despite drought, ill health etc. To compare photographic records regularly with visible results provides a powerful incentive.

David Kaden,
1 Eril Crt, CAMBOOYA 4358.

Dear GR,

Thank you for the marvellous magazine that I've been reading for the past 20 years. Now I would like some help from the readers. I am looking for an **INCUBATOR DESIGN** (to build) and information for running it on our 24 volt system.

Helen G,
PO Box 46, LEGANA 7277.

FEEDBACK LINK-UP FEEDBACK

Hi, GRs Everywhere,

Can anyone help me? I hope I can help someone else at the same time. Have been left in a disastrous financial situation after a marriage breakup. Am a mature age, very ambitious, but unable physically to do heavy work on neglected 15 acre property in Mildura, Victoria. I need urgently a very active, ambitious, honest and reliable nondrinking gentleman or couple who love farming and self-sufficiency etc, to tidy up and maintain the property for a free homesite and possible lease of land, or **SHARE ARRANGEMENT** to generate quick income. There are 10 paddocks, plus land suitable for cut flowers, vegetables etc etc. Write to me with details of yourself and ambitions etc, or ring 050-233-358 for more information.

Janet,
PO Box 907, MILDURA 3502.

Dear GR Readers,

In southern Victoria we have begun a community project to **PROTECT A 71 ACRE BLOCK OF BUSHLAND**. The success of the Timboon Bushland Co-operative will secure the future of one of only three bush areas adjoining the now disused Camperdown to Timboon railway line. The railway reserve is a lovely walking track, an important corridor for wildlife and a valuable reserve for native plants.

The bush is on a hillside with messmate/stringybark forest on an easily accessible ridge descending through large manna gums and blackwoods to Powers Creek. There are adjoining populations of koalas, grey kangaroos, yellow bellied gliders and over 30 species of birds have been recorded along the railway reserve.

Once purchased the Co-operative aims to protect and enhance the land, managing it for the benefit of the plants and wildlife, while members will be able to visit and enjoy their own special piece of Australia.

About 240 supporters are needed for this project's success. Early members include local people and those from quite distant parts of the state. If you would like to become a joint owner or would like further information please contact:



Helen Langley,
RMD 4343, COBDEN 3266.
Ph: 055-954-200.

Dear GR,

I certainly wouldn't recommend the **BUTTER/MARGARINE SUBSTITUTE**, page 52, GR 111. Copha and coconut oil are saturated fats; any fat which is solid at room temperature is so. Far better to use butter, certainly it is a saturated fat, but broken down with a non-saturated oil it reduces the problem by half. Margarine is not a good food. It has to go through so many processes to make it edible. Heating of the oils used in the making turns them into saturated fats. Far better to use butter which is a natural product made from beaten cream, rinsed with cold water to remove the buttermilk, with a more palatable flavour.

D Ward,
PO Box 1, LABRADOR 4215.

We think the benefit of the cophalcoconut oil substitute could be that, while it is a saturated fat, it is also significantly diluted with water and olive oil. Although we haven't tried it ourselves yet it seems like it would spread very easily too, and thereby reduce the amount required.

Dear GR,

Hello to you all! I am the mother of a beautiful eight month old baby boy, who is starting to get a bit big to be carried around in a front pouch. I was wondering if anyone could help me out with a **PATTERN FOR A SLING** for him so that I can carry him on my hip instead. He likes to be up where he can have a look around, and I like to have my hands free sometimes. Alternatively, maybe someone could explain how to tie a sarong to make an effective carrier, as they do in so many other parts of this world. Many thanks.

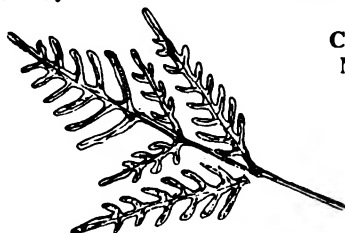
Clare, Andrew & Connor,
14 Eton St, CAMPERDOWN 2050.

Dear Friends at Grass Roots,

I don't really know why I am writing this to you all, maybe this is therapy for me, or something I simply need to share. You see, I am only 20 years old, and I am renting a little unit here in Narre Warren with my boyfriend of two years, Rick. He is **A MUSICIAN AND I AM AN ARTIST**. We live very close to his parents, whom I get along with really well, however they don't feel that we could live off our 'talents', and want Rick to work in the city as a carpenter/plasterer, which he hates! Although I know in reality you can't live off money that a guitarist or artist makes - I don't believe you should work from 9 to 5, week in, week out, and be miserable. And so, at present, we are both unemployed, and have just applied for the dole.

Anyway, my dream is to live a simple life, on some land somewhere. Whether it be in a community or just Rick and myself. I have always liked the idea of living in a tipi, however, I would also love to put the time and effort into building a mud brick house, and have a huge organic garden, some chooks and a river running through the property. Then again, isn't that everybody's dream! But when I sit here, and look out of the window, over a huge sea of tile rooftops, the dream of my own little patch of earth seems so very far away. I have very few people around me who have 'morals' and dreams like mine, and so desperately want to meet or talk to people who can inspire me to keep my dreams alive. So I suppose, my letter is a call to anyone who would like to write to me. Especially anyone who attends the annual Down to Earth confest, anyone who practises wicca or basically anybody: black, red, yellow or white, male or female, dreadlocked or shaved!

Tina,
C/- 1/55 Prospect Hill Rd,
NARRE WARREN 3805.



Dear Grass Roots,

I really enjoy you as a source of pleasure and information, but now I have a special plea. 'Help'. About 20 years ago I mowed several patches of **BRACKEN FERN** on a property we had just bought and it never came up again. I believed this was normal, and a couple of years later I read somewhere that to be successful it had to be cut at a certain time of the year. I had no bracken left so didn't think it was important and in the rat race of working for a living, forgot all about it. Now, 30 years later, and having another property with the same affliction, I wonder whether any readers can tell me the time of the year to make this a successful operation. My vague memory tells me that it would be around February or March, but at the age of 65 I don't want to use up energy on hit or miss activity. Can someone please help?

John Pump,
PO Box 29, LINTON 3360.



Hi Everyone,

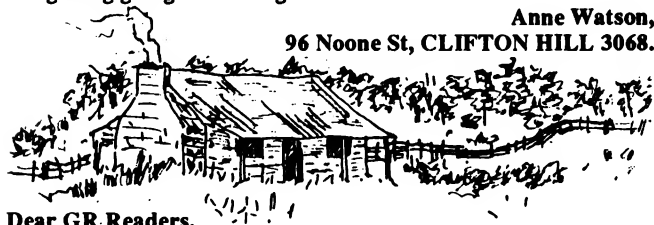
I've got a query that I hope someone might be able to help me with concerning **LONG DROP TOILETS**. We'll be heading out camping now that we're heading towards spring and summer. A problem we often come up against is the good old long drop and the smell and flies associated with them. Does anyone know of any solutions to either? I've thought of adding a few drops of essential oil to the timber of the building itself, or a potpourri sachet or two. Would adding a pot plant help? Is there anything that can be added to the loo itself that would help? If I add oils etc, what ones would deter the flies? I hope someone can help us out with our little aroma problem. It'd make our camping trips so much nicer. Thanks for a great magazine.

Cheryl McKay,
1 Christopher Close, PAKENHAM 3810.

FEEDBACK LINK-UP FEEDBACK

Dear Grass Roots,

We are presently attempting to set up a co-operative or association with the view to purchasing some land and creating a **SHARED COMMUNITY**. Hence we'd love to hear from others of their experiences. Any information, hints, definite do's and don'ts etc that you may wish to share re: legalities, purchase and actually setting up and getting going would be great to receive.



Anne Watson,
96 Noone St, CLIFTON HILL 3068.

Dear GR Readers,

Reading through GR 109 we've seen requests for things that I might be able to help with. For Rosemary Humphris on **EARWIGS**. A few years ago the *Sunday Mail* paper had a segment on garden help and they wrote an article on controlling earwigs. It would have been written over six years ago. You could also try the State Library. In the old section they have old newspapers but I can't remember the exact date.

For Johanna Joswati on **SOYBEAN CHEESE** or Tofu. This recipe is out of *The Hard Times Handbook*. In the book it states that soybean cheese is known as soybean curd or tofu. Beat 1 cup soyflour into 1 cup cold water until it has a smooth, even texture. Add to 2 cups boiling water, and simmer for 7-8 minutes. Add the juice of two lemons and stir, remove from heat and leave to cool. When curds form, strain, drain and collect. The leftover whey is good for breadmaking. Tastes very nice and is easy to make.

For Veneta Fitsummons on **CLEANING PRODUCTS**. GR 105 has some really good cheap cleaning products in it. The recipe costs about \$2.00 to make 20 litres of washing liquid. I've found the clothes cleaning product excellent as one of our sons wears white shirts and I soak them overnight in hot water and soap liquid and when I rinse, I use blue and the shirts still look brand new. For babies with nappy rashes I used zinc cream with a good layer of vaseline on top. By the time the nappy has rubbed the vaseline off the zinc cream has done its job. Nappies can be soaked in water with bicarb. Babies' bottles can also be soaked with bicarb, after it has cleaned pour the solution into the nappy bucket.

For Shelley Everingham on **GREEN CAULIFLOWER**. My preserving pan is a very old top style and the book is the 26th revised edition. The book says salt must be added to the water in the steriliser but give it a good scrubbing afterwards to make the tin last longer. Two sterilisations are necessary. Although the bottles may seem to be perfectly sealed after the first sterilisation it does not mean that they are. The fermentation bacilli is very strong in vegetables, and varies according to the type of soil they were grown in. After the vegetables have become cold, this bacilli begins to sprout, and after a time can become strong enough to form a gas which can blow the lid off the glass jar. By sterilising the vegetables a second time after a period of 48 hours, the bacilli is caught again by the heat while in the weak sprouting stage, and the spores are destroyed. The contents should last for a long time. Light coloured fruit and vegetables should be kept in a dark cupboard. All vegetables should be boiled for ten minutes before serving them. Do not boil any longer or the vegetables will be overcooked.

For Lucy Walter on **GYPSY CLOTHES** - I have some patterns from *Golden Hands Monthly* brought out in the early seventies. A lot have the hippy look about them. If she lets me know her size and any problems (eg long arms) I'll make some patterns up for her.

We hope some of our hints have helped some people.

Ray & Robyne Neal,
22 Cygnet Crt, VICTOR HARBOUR 5211.

Dear GR Family,

A few years ago I found out I had an eventually fatal disease which now keeps me tied to a **LIFE SUPPORT** machine for 16 hours every single day to stay alive. I had to give up most of my 'dreams' along with my little 100 year old, no-electricity, no-running-water farmhouse and its five acres, after pouring much blood, sweat and yes, tears too, into it all as I have to be near a major hospital. Never mind, I do still have all the callouses on my hands to remind me that I did do it, have done, and maybe, who knows, may do it again. My grandmother always said 'There's no shame in never reaching your goals. The only shame is having no goals to reach for.'

Through the Feedback pages I can still dream through the lives of others in the GR family able to have a go. In recent editions there's been quite a few requests and answers for homemade ginger beer and I'd like to offer mine as it is very different to all the rest as they've all required a yeast as 'starter' plant, making them subject to explosion. My recipe is simplicity itself, requiring no yeast or starters at all, and in all the years my grandmother made and I've been making it not one has ever exploded.

Ginger Beer - no 'plant', no yeast

juice 6 lemons
6 tspn ground ginger
4 kg sugar
6 lt water

Dissolve sugar in the water then add the ground ginger and the lemon juice. Strain and bottle straight away, bottles do not need to be sterile but they must be scrupulously clean. This recipe will fill three glass flagons, which, if you're not a drinker, can be found at any scout-guide hall bottle depot. In warm weather it will be ready to drink in approximately four days, in colder approximately eight days. Store in a cool place. Flagons are the best as they're a thicker stronger glass and I've never had a bottle explode using this recipe.

Maybe some GR folk can help me, to while away some of my daily 16 hours on my machine I've taken up **PHONECARD COLLECTING**, so if anyone out there could send me their used phonecards, any and all even if the same, I'd be very grateful. I'm particularly interested in getting a phonecard that's used only in Victorian prisons, I also collect used electronic bus and train tickets - the ones you pop into a machine as you get onto the bus or train. I look forward to being swamped with phonecards and tickets and thank you all in anticipation.

One more hint for those affected by the drought: stop feeding your stock - be it chooks or cattle/sheep etc - the straight grain, instead sprout it! In a covered, shaded or protected area spread out wet grain sacks or even wet old rags and spread grain over it. Plastic does well too, in fact it's the best as it keeps the grain damp and any old plastic will do for the base. Wet it all down again and then cover the grain lightly with damp old sacks or damp rags - use your imagination. Keep grain damp and in 4-10 days you'll have feed that's 'value added' by about 500 %, will go much, much further in **KEEPING YOUR STOCK ALIVE**, will save you lots of money, give your stock better feed, and it's all so simple. We used this method for over six months. On a larger scale some method of using multiple stacks of trays built out of scrap timber and mesh on flyscreen gauze could be used. I'm sure that someone out there could develop this system of using sprouted grains during drought periods to feed stock instead of just giving them the straight grain, help out rural folk and maybe even make themselves a fortune, after all we are the 'clever country'.

Michele Dixon,
PO Box 661, LUTWYCHE 4030.

Dear GR Readers,

Can anyone help? Has anybody made **PEAT POTS** out of newspaper? Can you send instructions on how please? Thanks.

Jo Burns,
8 Shaftsbury Rd,
RDI Te-Aroha, NEW ZEALAND.

FEEDBACK LINK-UP FEEDBACK

Dear Grass Roots,

We'd love to hear from anyone who has set up a **DOMESTIC WATER SUPPLY** to know how they went about it. We have dam water for domestic purposes and will have rain water for drinking only. We have a fairly good fall to be able to have 'gravity feed' as we'd like to avoid having a pressure pump if possible.

Hopefully, some GR person has been through the exercise and has some advice for us. Our house will be a loft house, so we are interested also to hear from anyone with a gravity-fed hot water system. As we are intending to have gas or electric off peak it will probably be located on the ground floor level. Has anyone had problems with this?

Chris and Brian James,
PO Box 25, BRAIDWOOD 2622.

Hello Megg & Gang,

Love the magazine and love to read letters from other 'city bound' GRs.

I am doing studies on North American Indians, Celtic History and trying to do a family tree but am having trouble with ancestors of the name GILKERSON. If anyone can give me something to encourage me on my search I'd appreciate it.

L Wells,
25 Meredith St, BROADVIEW 5083.



Dear GR Readers,

Self-sufficient artists are an impoverished breed and this one has been plugging along determinedly for half a lifetime and would like some help. Is there anyone out there (potential partner or group of like-minded people) who would be interested in assisting me with a place to live and work in return for many wisdoms? I have a bundle of skills that unfortunately don't readily return money, like bush knowledge, writing skills, gardening, cooking (vego), compassionate care of living beings. I can sing, dance, drive (including 4x4 in the desert) and I am a patient teacher and listener. I have basic computer skills and can do workshops in many crafts (lino block printing, screen printing and the like). I regularly exhibit my art, but despite much (national) acclaim, still find it hard to earn a living. I am happy to relocate.

I have often imagined that eventually after all my wanderings (like now!), I would like to settle in a shared rural environment with kind hearted people (n/s, s/d). I am a woman and a Mahayana Buddhist, and would be interested in starting or joining a group who are trying to **LIVE BY THE BUDDHIST PHILOSOPHY**. I don't have any capital or assets to offer, but intermittently I am able to earn money to contribute, and with support could be more successful.

I applaud GR mag for its friendliness and useful information. It's a pleasure to read a public magazine that doesn't trade in angst and social gossip!

Kerry,
2 Tynte Pl, NTH ADELAIDE 5006.

Dear GR Friends,

Thank you so much for this warm and inspirational magazine that I've only discovered in the last year. I am a student studying environmental studies and drama teaching, with one year to go. Eventually, after travelling Australia, I'm hoping to get a job in the country and leave the crazy city and start a wholesale/retail herb farm as well as teach. My partner and best buddy, Joe (who listens attentively and patiently as I enthusiastically read out loud copious GR articles), has the same dream, so hopefully it will come about and we will live a more self-sufficient and environmentally friendly lifestyle. I'd love to hear from anyone who has experienced **STARTING A PLANT NURSERY** in the country and also from teachers in the country and their experiences.

Sophie Matheson,
C/- 14 David St, HAMPTON 3188.

Dear GR Readers,

It's been a while since I've put pen to paper so I thought I could pass on some helpful hints to a few.

For Sue Stidwell of Croydon Park SA: Is your **HAIR DRY** at the ends because of split-ends? You may like to try vinegar - dilute with half rain/distilled water and use as a rinse. To highlight your natural colour, steep fresh rosemary (for brunette) or fresh chamomile flowers (for blonde) in the vinegar in a glass jar in the sun for approximately three weeks. Then dilute with water for use. With a vinegar rinse, it doesn't matter how much you pay for or which brand of shampoo you use as you'll find vinegar will wash it out anyway, along with all dirt, grease, odours etc. Vinegar rinse will also leave your scalp with a neutral pH balance, so is perfect for scaly scalp also.

A friend told me recently that a quick and quiet relief for headaches is to relax with your feet in a tub of hot water. I don't suffer from headaches, but for those of you out there who do, you could always give it a go.

For Kathy Ffoulkes of Safety Bay re: **TOWELLING VERSUS DISPOSABLES**. Firstly and foremost consider the young baby's health. Will the skin breathe easier through cotton (a natural fibre) or a plastic covered synthetic fibre? Secondly, maybe suggest to your sister-in-law that she read *Old time Water-Saving Tricks* in GR 110. For the great detergent debate, soaking and washing cloth nappies is still quite possible using enviro-friendly products: soap flakes, vinegar etc. Read through previous GR Feedback pages for alternatives. For electricity consumption, well, conservation is my only suggestion. Obviously I'm pro-cloth nappies, although when all cloth nappies are washed and still wet after three solid weeks of rain, disposables can be a saver of mum and dad's sanity. I do hope these suggestions will help your sister-in-law out.

Lastly, maybe someone out there can help me in locating an **ELDERBERRY** cutting. I've dried seeds but am not too successful with them. I'm happy to swap with other cuttings the provider might like, or alternatively seeds. The elderberry is the tree of which wine is made from the berries.



Dear GR Readers,

I am a keen grower of our **NATIVE PLANTS**, and I'm seeking seeds of the *Thysanotus* group or fringe lily, in particular the *Thysanotus multiflorus*, but others are welcome. I have seeds of our local species which I'm willing to swap - they are *Thysanotus juncifolius* and *Thysanotus patersonii*. I'm also on the lookout for *Kennedia mycrophylla*, and trailing plants (seeds). I hope there is some kind person out there who can help. Thanking you in anticipation.

Ann Houghton,
PO Box 471, WILLUNGA 5172.

Dear GR Readers,

In issue 110 at least two letters asked about using **POLYSTYRENE** insulation in their homes. Apart from the fact that rats and mice will chew into it and release poisonous gases; a few years ago I set out some plants in polystyrene containers (as some people recommend) and couldn't understand why my chooks were dying off, I blamed foxes until I walked around my property and found the remains of a dozen chooks and the chewed up polystyrene containers. The other problem is that polystyrene has a relatively low melting and flash point and even with a brick house the bushfire temperature can reach 1000° or more and release gases and catch fire, so don't use it.

Don Reynolds,
MUDGE.

FEEDBACK LINK-UP FEEDBACK

Dear GR Gang,

'And the times they are a changing'. Internet, information superhighways, warp speed serial port, are words that didn't exist five years ago.

We in the bush will benefit greatly from this **SECOND COMPUTER REVOLUTION**. A new book, *Job Shock*, by Harry S Dent Jr, published by Bookman (USA) about future jobs, some not even running yet, should be standard issue in all libraries. If you want to be in front you'd better read it (\$4.95 at the Book & Toy warehouse - up to \$14.95 elsewhere).

Literacy would seem to be the skill most needed and the skill most easily gained. TAFE does literacy courses, or DIY ten minutes a day with a dictionary if you can already read. Years ago at school we had to learn one page of *The Concise Oxford Dictionary* for homework each day. It was the same page for the whole class each day and if you were asked a word and got it wrong you wrote it out 200 times to jog your memory. It was the most valuable part of my education.

The dictionary also tells you how to spell and pronounce words, which is going to be critical when in a few years you will be talking directly to computers and people overseas without having to type everything in. English will become the world language, so we have a huge advantage over other languages as you can imagine. If you say to the computer 'pitcher' the computer, or people overseas, will understand 'a bucket' and not a 'picture'.

Elocution and diction lessons will be a boom industry. Most females will have less problems coming to terms with that than us males as they normally talk clearly and are less prone to mumbling and poor pronunciation. So dust off the English books, you can't say you haven't been told. And there will be a drift back to the country towns as people reject living in polluted cities and high house prices. Computer jobs in the country and working from home will become a reality with computer networking of PCs using untapped resources, like GR does now with a magazine.

Roberino,

Lot 4, ARRAWARRA BEACH 2456.

Dear GR,

Thank you for a great magazine. What I'd like some help on is **FOOD DEHYDRATORS**. I have at the moment an \$80 Sunbeam (healthy food dryer), which was a Christmas present. I have found that the fruit and fruit leathers that I have tried to dry are short of successful. The edges are crispy, almost burnt, and the middle is still quite soggy. I know that there are more expensive dehydrators from electrical shops available and wouldn't mind paying more, if I knew they would work. I've also sent away for a brochure on Nara home food dehydrators. If anyone has some information or advice about selecting or using a food dehydrator, I'd be really grateful and I will try to answer all letters.

Sharon Spicer,

135 Fitzroy St, TUMUT 2720.

Hi Megg and other GR folk,

Kathy Ffoulkes (GR 110) asks about **COLD SORES** and how to prevent them. First the bad news, Kathy: the best way to prevent cold sores is to grow a beard and moustache! The cold sore comes from a virus which is activated by ultra-violet light, thus consistent with your complaint about them erupting after a day out in the sun.

Now for the good news: there are other alternatives. Until recently, I swore by a product from the chemist's shelves called Lip Sed - the lotion seems to be better than the chapstick. If you apply the lotion at the very first sign of that itchiness that precedes the cold sore, it will often fail to appear in its full ugliness. However, even better is **ALOE VERA**. Recently, after a day in the sun, I felt a cold sore or three coming on. Horrors! the bottle of Lip Sed was empty and it was late at night. No chemist open. Because my skin was quite sore, in desperation I broke off some aloe vera and squeezed the gel all over the affected area. In the morning - not a sign of cold sores. I have repeated this experiment at least eight times since then with exactly

the same results. Other readers may like to test this out. Perhaps we can chalk up another use for this amazing, wonderful plant.

I can't help thinking that Vance Avenell's 'Old Time Bushie's Shin Ulcer Cure' (also GR 110) could have been superseded by the aloe vera plant, if only he'd known!

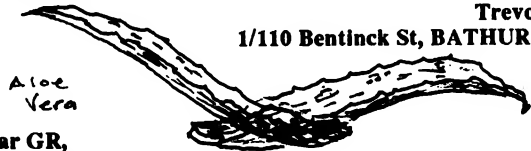
At the risk of repeating information already published in GR (I love your story of the faxes on consecutive days, Megg!), I have used aloe vera on all sorts of cuts and grazes; applied immediately to quite bad burns it allows healing quickly without blistering. I have been using it on my hands for months now, and apart from the skin being rejuvenated, those ugly age spots have disappeared instead of having to be burned off by the skin specialist.

I emphasise here that I am talking about the gel squeezed from the fleshy leaves of the plant itself. I would tend to avoid the rubbish you buy in bottles, with their added fragrance and whatever other additives.

Get an aloe vera, water it a little from time to time, and it will soon have babies. Repot all the little ones simply by breaking them away and sticking into an empty milk carton filled with potting mix (cut the corners off the bottom for drainage), and sell them at the local market, or give them to friends. The best gift they'll ever receive! Just one word of warning: never leave them out in the frost - they go all gooey and start to stink, then die.

Trevor Ethell,

1/110 Bentinck St, BATHURST 2795.



Dear GR,

This is my first letter as I am a recent convert to your magazine. First of all, my heartfelt thanks for providing a forum for people with a caring attitude towards others and old mother earth, to contact each other and pass on such invaluable information. I can honestly say I have learnt more from several issues of the mag than from years spent searching libraries for similar information. I have recently moved to Bairnsdale in Gippsland (temporarily) and will be moving on to Benambra in a few months. If there are any GR people in the area I would love to hear from them.

I am very interested in **ALTERNATIVE POWER GENERATION** (especially steam and wind), restoring old machinery, tools and furniture, and helping people wherever possible.

I also have some questions if anyone can help: I am thinking of doing a course with **INTERNATIONAL CORRESPONDENCE SCHOOLS** in either TV and video repair or refrigeration/air conditioning. Has anyone had any experience with this firm and would I be able to operate either as a part-time business when finished?

Also, does anyone qualified to teach **TRANSCENDENTAL MEDITATION** live in this area? Lastly, is there a good reason why I never read about people using a simple car alternator and regulator in a wind generator set-up? Surely if it was geared up and had a large enough prop it would work? Thank you for your time and a great magazine. Look forward to any replies and will answer all.

Craig,

PO Box 278, BAIRNSDALE 3875.



Dear GRs,

Re question in GR 108. Alanna Laurent asked about her mother's **BURNING FEET SYNDROME**. The vitamin pantothenic acid, or calcium pantothenate might be helpful in this case. Also, another vitamin, pyridoxine (B6), could help too. Vitamin E should also be taken. Adele David has written about this in her book *Let's Get Well*.

Joyce Grimmer,

PO Box 1110, YEPPOON 4703.

FEEDBACK LINK-UP FEEDBACK

Dear Grass Roots,

I am writing to tell you about our experience with a supposedly 'SAFE, NONTOXIC' WOOD OIL purchased from one of your advertisers, Bio Products Australia Pty Ltd. We bought the wood-oil from Bio Products' Queensland distributors and followed the manufacturer's instructions in applying two coats to our new pine-panelling walls. I have a damaged liver, and am highly sensitive to chemical fumes. This is the reason we used a product advertised as containing no toxins and being completely safe for allergy sufferers.

Almost as soon as the first coat went on I developed diarrhoea leading to great fatigue. Although there was a strong smell of wood oil, I did not take any precautions to avoid it, believing it to be safe. The fumes continued to be emitted for three weeks or so, after which the second coat of wood oil was applied.

This second coat nearly destroyed me; I felt so ill, with splitting headaches, nausea, intensely painful muscle cramps, wheezing and red skin wheals.

I finally phoned Bio Products to tell them of the problems being experienced with their product, and asked what it contained. To my horror, I was informed that it contained 50% tung oil, an oil extracted from the nut of a Chinese tree, and used as a wood preservative.

I immediately recalled an article about the toxic properties of tung oil which I had read in the New Zealand Chronic Fatigue Society's journal almost ten years ago, and fortunately was able to find the relevant article again. Tung Oil, far from being 'safe and nontoxic' is in fact highly toxic, and has been implicated in the re-activation of the Epstein-Barr virus (a herpes virus) as well as producing numerous other toxic effects.

One phone call to the Queensland Department of Workplace, Health & Safety, yielded an abundant supply of information documenting these effects. From the nut to the meal to the oil, the whole plant contains an irritant, phorbol derivative, toxin. Eating of the seed, meal or oil causes nausea, vomiting, severe abdominal pain, diarrhoea, dizziness, lethargy, and disorientation. Large doses cause fever, rapid heartbeat (tachycardia) and respiratory effects. It has a characteristic disagreeable odour and contains a toxic saponin that causes gastroenteritis in animals and in humans which acts as a powerful haemolytic that destroys red blood cells.

This then is the material used by Bio Products in their 'safe' products. I have informed the South Australian Office of Consumer Affairs about this situation, and am now warning anyone thinking of 'protecting their health' by using Bio Products, to think again. There was no mention of tung oil in any of the literature we were sent with the product, and I am appalled at Bio Products' total irresponsibility in using such a material in their product.

Liz Hansen,
Naturopath, Vet Nurse, Biology Student.
PO Box 952, DALBY 4405.

Dear Mary,

Thank you very much for your letter dated November 2nd 1995. In the past weeks we again researched WOOD OIL with these results:

The customer claimed that we did not inform her that our product contains tung oil. Tung oil has three different names: wood oil, Chinese wood oil, tung oil. Our product is sold under the name of wood oil.

We always give full information about our products to customers who have specific health problems, but we have to be asked.

We enclose a copy of a letter from our supplier to the Officer of Consumer Affairs in Adelaide. It says that the oil in question is a refined product of which the Public & Environmental Health Service in South Australia regard the oral toxicity as very low. There are only cases known where people drank or ate tung oil and got sick. (Copy enclosed.) The Officer of Consumer Affairs did a research on tung oil and as far as we know he could not find anything which gives an indication that tung oil as a paint product is toxic. We further

contacted the ME society in Adelaide, the Allergy Association in Adelaide and Brisbane and there is no information about toxicity of tung oil available. We also contacted the Queensland Department of Workplace, Health & Safety as the customer quoted that department, but no information was available. During the last financial year 228,000 kilos of tung oil have been imported to Australia and no complaint has been heard.

At the University of South Australia we searched for information about tung oil. There are 18 publications, but no information about toxic substances in the oil could be found. In a book, *Toxic Plants*, only a subspecies of a similar tree has irritants in its timber.

The customer quoted an article claiming that tung oil could re-activate the Epstein-Barr virus. The author of that article suspected tung oil of re-activating, but no further research was done on this subject. By the way, I was diagnosed as having Epstein-Barr virus, but I can handle tung oil without any problems.

We are still searching for information, but until now without any success. We are still convinced that our product is a nontoxic paint product and will well serve our customers.

Dieter Groening,
Bio Products Australia Pty Ltd.
25 Aldgate Terrace, BRIDGEWATER 5155.

Material sent to us, by both the supplier and the customer, indicates that ingestion of tung oil, and, in particular the tung nut kernel, can cause health problems; as can injection of the oil into the blood stream. There is no mention of any known health risk from using the product for the purpose it is intended, as a component of paint. However, we are all individuals and our metabolisms can react in different ways to various foods and other products not generally held to be 'toxic'. We recommend that people with existing health problems accept the responsibility of making this known to manufacturers or suppliers before purchasing products. People are usually very willing to give appropriate advice, but they must know the problem before they can advise on it.

Dear GRs,

For the past two and a half years I have been putting together personal stories to include in my book on the value of the various kinds of PARENTING WORK done in our society. Although I now have stories covering many different situations, I still need some others. I particularly need stories told by: Rural parents (to provide a comparison between city and rural experiences of raising children). Mothers/fathers who are from a different culture to their partner and bringing up their children in Australia. What is it like living with two sets of cultural expectations? How do you find a balance between the two?

If you, or people you know in these situations, are interested in writing about your experiences (or recording your story on cassette so that I can type it up), I will be very happy to hear from you. Also, anyone who wishes to find out more about this collection can ring me on 06-282-5186 or write to me at the address below so that I can either talk to them about the book and/or send them some more information about it. I look forward to hearing from interested people.

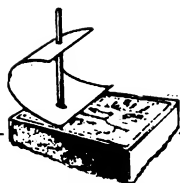
Anne Godfrey,
8 Reibey Place, CURTIN 2605.

Dear Readers,

At the moment we are living on the mid-north coast of NSW but are looking for somewhere to live in NORTHERN NSW. We are a quiet vegan/vegetarian couple with a baby due in April and have an old dog. We are interested in selling our crafts at markets, but are not doing too well in this area. Munga is into making didgeridoos and assorted woodcrafts and I make handmade paper; as well as other crafts.

Ideally we are looking for someone who is willing to let us live on their land in exchange for a bit of rent money. We have our own caravan, but need somewhere with electricity so we can run a few power tools.

Wendy Hodge,
C/- Post Office, LONGFLAT 2446.
Ph: 065-874-430, or 015-001-244.



KIDS PAGE

Playing with water is a fun science activity, particularly on a hot day. Making boats and building plumbing are two science activities from *Sandbox Scientist*, our review book. They both involve lots of experimentation which you can try by yourself or with a group of friends. Remember though, that water is a valuable resource and should not be wasted. Make sure the water you play with can be re-used on the garden.

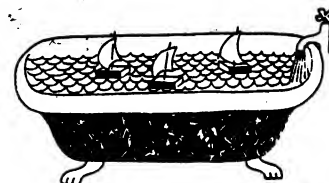
MATERIALS TO COLLECT FOR WATER ACTIVITIES

PVC pipe	nylon fishing line
funnels	wooden offcuts
corks	rubber bands
styrofoam	string
plungers	drinking straws
acrylic tubing	cardboard boxes
sponge	plastic bottles
plastic tubs	paper
plasticine	foil
bottles with droppers	plastic sheet

BOATS

Materials

- foil
- paper plates
- corks
- drinking straws
- clay
- pieces of sponge
- cups, styrofoam and other discarded packing materials



The challenge is to design a boat that will float. If your vessel is built from materials that are too heavy to float, what can you do to make it float? Test your boat in a wading pool, trough or bath and make changes to improve its performance. Successful ideas can be shared with other boat builders. If possible, leave the boats out for a while to see the effects of waves and time on the seaworthiness of your crafts.

BOOK REVIEW

SANDBOX SCIENTIST by Michael E Ross



Sandbox Scientist is a great collection of science activities for kids. For home educators and teachers, it could provide the basis for a whole year's science programme. The areas covered are water, matter, air, light, mechanics, building, little critters, kitchen science and outdoors. The activities encourage exploration and experimentation, with guidance from an adult to ensure safety and meaningful learning along with the fun.

P/b, 195 pp, Chicago Review Press, distributed by Boobook Publications, PO Box 163, Tea Gardens 2324. RRP \$22.95.

Q. Why did the thief take a bath?

A. So he could make a clean getaway.

Q. What vegetable needs a plumber?

A. A leek.

Q. Where do frogs keep their savings?

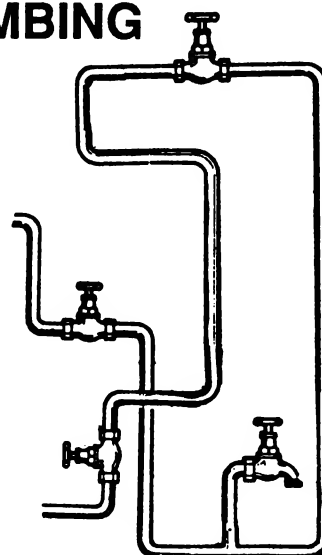
A. In the river bank.

PLUMBING

Materials

- PVC pipe, cut into a variety of short lengths (20, 25, 30 and 45 cm)
- 90° fittings
- 120° fittings
- T-fittings
- clear acrylic tubing
- funnels of various sizes
- plastic tubs and cups
- sponges
- buckets
- corks

Set all the materials outside where spilling water won't be a problem. Now it's time to experiment! Set up the plumbing by joining the pipes with fittings. Be creative in the ways you find to move water from one place to another. The more complex, the better!

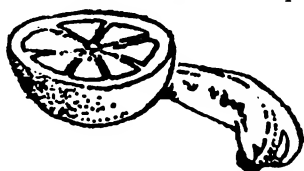


COOKERY CORNER

Finish off a day of water fun by making a thirst quenching drink.

FRUIT SMOOTHY

- 1 banana
- 1 cup orange juice
- 1 cup yoghurt



Chop banana and add to juice and yoghurt in the blender. Blend until frothy. Serve with floating fruit juice ice blocks and a loop-the-loop plastic drinking straw.



WHILE THE BILLY BOILS

Bake lettuce? Yes you can. Try it for yourself in this sweet corn and lettuce bake, an unusual dish which is especially tasty when made with corn freshly picked from your garden. The versatile veggie loaf from Yuna Grace should appeal to children, as should the salmon subs. Imaginative youngsters could adorn them with celery and carrot sticks as masts, periscopes, conning towers. Finish off a meal on a hot night with the rich, smooth honey ice cream sent in by one of our overseas readers.

SALMON SUBS

This makes a refreshing starter or lunch-eon dish. Serves 4.

- 2 medium cucumbers
- 4 tbsp white wine vinegar
- 1/2 tsp salt
- 400 g tinned salmon
- 2 tbsp mayonnaise
- 1 hard-boiled egg
- 2 tomatoes
- basil, to taste
- chives, to taste

Drain salmon. Carefully chop egg and tomatoes. Finely chop herbs. Cut cucumber in half lengthways – do not peel. Remove flesh – discard large seeds. Put cucumber skins (subs) aside. Dice flesh. Soak in vinegar and salt 1/2 - 1 hour. Drain thoroughly. Add to remaining ingredients and mix gently. Chill in fridge. Dry subs with paper towel. Fill with mixture. Sprinkle with black pepper and/or extra chopped herbs before serving. Mixture can also be served in 'subs' made from French sticks or long crusty rolls.

Meryl Pickering, Albany.

CURRIED EGGPLANT

- 1 kg eggplant
- 2 lge onions
- 1 capsicum
- 4 tomatoes
- 2 cloves garlic
- 4 tbsp butter
- 1 tsp tumeric
- 1/2 tsp ginger
- 1/4 tsp cayenne pepper

Cube eggplant, chop capsicum, crush garlic, slice tomatoes and onions. Melt butter and stir in spices. Add eggplant, sauté for 10 minutes. Add remaining ingredients, except tomatoes, plus one cup water. Bring to boil and cook uncovered till liquid is almost evaporated. Add tomatoes and cook very slowly for 15 minutes.

Gail Gower, Ogmere.

PESTO PASTA

- 250 g your favourite pasta
- generous handful cherry tomatoes

- 1 zucchini
- 3 spring onions
- 1 red pepper
- 1 green pepper
- 1/2 cup black olives
- basil leaves for garnish

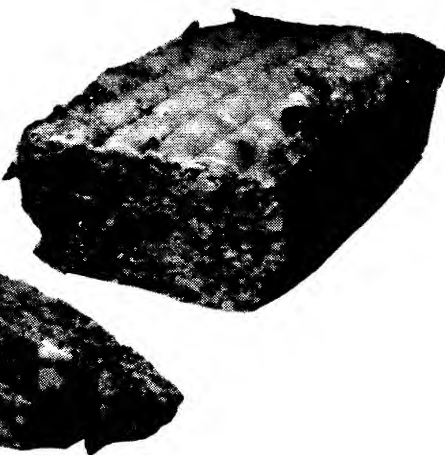
Pesto Dressing

- 1 cup mayonnaise
- 3/4 cup fresh basil
- 1/4 cup fresh parsley
- 1/2 cup grated Parmesan cheese

Cook pasta. Rinse under cold water. Slice zucchini, peppers and spring onions. Place in a serving bowl with tomatoes, olives and pasta. Gently toss dressing though salad. Garnish with basil leaves.

Dressing: Combine all ingredients in a blender and mix thoroughly.

Rosetta Berry, Park Orchards.



VEGIE LOAF

- 1 cup grated potato
 - 1 cup grated carrot
 - 1 cup grated zucchini or any other vegies you have in the garden: squash, celery, silverbeet, sweet potato
 - 1 egg, beaten
 - 1/2 cup breadcrumbs (or rice crumbs, cracked wheat, depending on your taste or diet)
 - 1 diced onion
 - 1 clove garlic, crushed
 - 1 rasher of bacon (for those not so strict)
- Mix it all together in a bowl, add a

drop of milk (or substitute) if too dry, put in a foil-lined loaf tin and top with grated cheese. Be sure to line the tin with foil or it will stick like hell and you'll never get it out. Cook in moderate oven for 20-30 mins. Serve with your favourite tomato sauce.

You can add or take-away ingredients as you wish. Make patties/rissoles and bake them instead, put them on a bun with salad and call it a 'hamburger' for the kids. Have it cold on sandwiches, at picnics or take to work for lunch. The variations and uses are endless.

Yuna Grace.

SWEET CORN AND LETTUCE BAKE

- 2 cups corn kernels
- 1 cup shredded lettuce
- 1 cup breadcrumbs
- 2 eggs
- 1/4 cup milk
- 1 tsp finely cut dill leaves
- olive oil

Grease an ovenproof casserole dish. Layer ingredients thus: corn, lettuce, 1/2 cup of breadcrumbs, lettuce, corn. Reserve remaining breadcrumbs. Beat eggs, add milk and dill, beating to combine. Pour over layers in dish. Top with remaining breadcrumbs. Lightly sprinkle olive oil over. Bake in medium oven 40-60 minutes until set and browned.

Tony Trega, Phillip Island.

HONEY ICE CREAM

This is an old recipe from my great grandmother's cookbook. Late 1800s.

- 5 eggs
- 2 cups heavy cream
- 2 tbsp vanilla
- 2 3/4 cups honey
- 1.2 lt milk
- dash of salt

Separate eggs and beat whites (not until dry), then beat yolks until thick, add cream and honey to yolks, mix and add to eggs whites. Then add milk, salt and vanilla. Put into ice cream freezer and freeze until stiff.

Mr F Miller, Kansas City, USA.

TOFU

by Robyn Wilson, Nambour, Qld.

Tofu is the Japanese word for soy or bean curd and, when pressed firmly, is called soy cheese. It is made by curdling soy milk, separating the whey and pressing the curds under weights between cloths in settling boxes. Tofu originated in China over 2000 years ago and rapidly spread to South-East Asia and Japan where each country developed its own localised version; *tahu* in Indonesia, *tohu* or *pepya* in Burma and *dofu* or *dow-fu* in Thailand, Laos and Vietnam.

There are three main forms of tofu available commercially from Chinese and natural food shops. Medium-soft tofu is the most usually seen variety. Hard tofu is made by pressing the curds more to give a compact, solid texture that doesn't disintegrate when stir-fried. Soft tofu (*kinugashi* or silken in Japan, *tahu fah* in South-East Asia) is not pressed, the curds being allowed to set in the whey which is then carefully scooped off.

The best tofu is made from organic soy beans and is very fresh. It is better to eat tofu the day it is made, which is why it makes sense to make your own. It is important to have a good quality curdling agent. Nigari is the traditional Japanese coagulant. It is the grey liquid which drips from a hessian bag of raw sea salt and is rich in minerals. It produces the best tofu but is not readily available. The other coagulant generally used, and easier for the inexperienced tofu maker, is calcium sulphate found naturally as gypsum. Epsom salts (magnesium sulphate) is the coagulant used in the following recipe.

MAKING TOFU

- 1 cup dry soy beans
- 3 cups water
- 3 cups water
- 1/2 tsp Epsom salts
- 1 cup water

Soak beans overnight. Drain and blend with three cups water for two minutes in the blender. Pour pureed soy bean mixture into a flour sack or tea

towel and squeeze, collecting the soy milk in a pan. Return contents of sack to the blender, add another three cups of water and blend for two minutes. Strain as before, adding liquid to the pan. (Soy bean residue left in the sack can be put aside to use in rissoles or loaves.)

Dissolve Epsom salts in one cup water and set aside. Bring soy milk to the boil in a large pan, stirring constantly. Reduce heat and boil gently for five minutes. Continue stirring. Remove milk from heat. Whisk in enough of the Epsom salts solution to form a curd. It may not be necessary to use the full cup of solution. Strain through double thickness of cheesecloth and let stand fifteen minutes to solidify. Rinse gently in cool water and store in fridge in water in a covered container.

From Colin Franklin.

USING TOFU

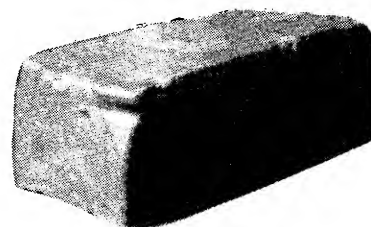
Tofu is able to be used in place of animal based products, and, because it is high in easily assimilated protein, low in fat and with no cholesterol, it can be the basis of a much healthier diet. Here are some ways of using tofu in your cooking.

Tangy Tofu Cottage Cheese

- 350 g tofu
- 2 tbsp oil
- 3 tbsp lemon juice or vinegar
- 1 tsp salt
- 1 glove garlic, minced
- pepper

Mash together all ingredients. Leave to stand for half an hour. Serve as a dressing for fresh vegetable salads. For a rich flavour, omit garlic and salt and add 3 tablespoons red miso, 2 tablespoons sugar and minced parsley.

From Claire Lintern, Kaleen.



GRASS 49 ROOTS



Tofu Casserole

- 2 cups cooked soy beans
- 2 cups cooked corn kernels
- 1 cup tofu
- 2 cups tomatoes, chopped
- 1/2 cup celery, sliced
- 1 small onion, chopped
- 2 tsp vegetable stock concentrate
- 1 tsp salt
- 2 tbsp margarine, melted
- 1/2 cup wholemeal breadcrumbs

Arrange alternate layers of soy beans, corn and tofu in a casserole dish. Add tomatoes, celery and onion. Dissolve stock and salt in half a cup of water and pour over all. Top with breadcrumbs and margarine. Bake 30 minutes in a 180°C oven.

Tofu Pizza

- prepared pizza base
- tomato paste
- 250 g tofu
- 3 tbsp miso
- 1 tbsp oregano
- black pepper
- olives, chopped
- mushrooms, sliced
- walnuts, crushed

Puree tofu and miso. Spread pizza base with tomato sauce, then with tofu. Sprinkle oregano, pepper, olives, mushrooms and walnuts on top. Bake at 205°C for 10-15 minutes, depending on thickness of base.

Apple Tofu Cake

- 500 g wholemeal flour
- 1 tsp bicarb soda
- 3/4 cup tofu
- 1 cup apple juice
- 1 cup honey
- 1 tbsp cinnamon
- 1/4 tsp nutmeg
- 1 tsp mixed spice
- 400 g cooked apples, drained

Mix flour, soda and spices together. Blend together the tofu, juice and honey in the blender. Add to the flour and stir well for two minutes. Add the apples. Put into two sandwich tins. Bake at 180°C for 40 minutes.

Strawberry Tofu Mousse

- 1 1/2 cups tofu
- 1/3 cup oil
- 1/2 cup sugar
- 1/4 tsp salt
- 1 1/2 cups strawberries, sliced
- 1 tsp vanilla
- 1 tbsp lemon juice

Put all ingredients in a blender and blend until smooth and creamy. Pour into individual serving dishes or a baked pie shell and chill overnight.

Tofu Burgers

- 125 g tofu
- 1 medium onion
- 1 carrot
- 1 zucchini
- 1 egg
- 1 capsicum
- 1 tsp dried herbs
- 1 tbsp soy sauce

Grate the tofu. Slice onion and capsicum finely, grate carrot and zucchini. Saute vegetables in a little oil. Add mixed herbs and cook until soft. Cool, then add tofu, beaten egg and soy sauce. If mixture is too wet, add a little oatmeal or similar. If too dry, add yoghurt. Ingredients can be varied accord-

ing to taste and what you have on hand. Grated cheese may be added.

With floured hands, shape into rissoles and place on a greased baking tray. Bake in a moderate oven until browned. Serve in wholemeal rolls accompanied by salad.

STORING TOFU

Fresh tofu is very perishable and will only keep three or four days, immersed in water, in the refrigerator. Dried tofu will keep several weeks. To dry, cut the tofu into thin slices and spread on trays. Dry in a sunny, well-ventilated place. When dry, the tofu will be soft inside and crusty on the outside. Keep in the refrigerator.

References

Grass Roots 31, p 29 'The Politics of Protein' by John Seed.
The Natural Tucker Soy Source, by John Downes, Hyland House.
The Soybean Book, by Phyllis Hobson. Out of print, but you may find it at your local library.
Tofu Cookery, by Louise Hagler.

HEAVY HORSE & SMALL FARMERS FIELD DAY



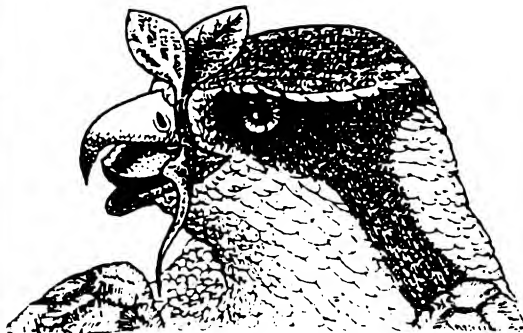
As little as 50 years ago the working horse was still an integral part of farm and rural life. The push for modernisation and efficiency in the 40s and 50s saw a sudden decline in the use of working horses, and a consequent loss of the associated skills and lore.

Fortunately, scattered communities and isolated devotees have resisted the tide of mechanisation and kept the arcane knowledge alive. On Saturday, April 6th, near Echuca, Victoria, one such group of heavy horse enthusiasts will be sharing this knowledge. Horses will be at work mowing, stooking and carting hay, dam building and chaff cutting. Visitors will also be able to see harness making, a working blacksmith, and much more, including camp cooking and craft stalls.

Situated on a 400 acre mixed farm, Highgate Clydesdale Stud, Shackell Rd, Nanneella, ten minutes drive south of Echuca. For further information ring: Doug Watson,

054-849-251.

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CONTROL OVER OUR LIVES

A SELF-RELIANT FAMILY-BASED LIFESTYLE

by Sharron Batt, Ruffy, Vic.

Fourteen years ago we purchased our present home, an old weatherboard church in a small township on the Strathbogie Tableland. Wanting clean air and somewhere to grow our own food, but having very little money, we had initially been looking for a place to rent in the country. However, while browsing through the *Weekly Times* we noticed this property available very cheaply, for a low deposit with vendor terms, in a place we'd never heard of before. We rang, got directions and drove up to inspect a very weather-beaten (it still is!) old church in the middle of an acre of sheep paddock with a couple of cypress trees and three huge old pine trees down the back.

The building, despite external appearances, was very sound and well built. Best of all, inside it was lined with beautiful old Baltic pine lining boards and flooring. It also had a very small rainwater tank, a pan toilet 'down the back' and had recently been wired for electricity. Before making a decision to buy we enquired locally about bore water and found that many people had reliable bores with good quality water. We also checked with the shire for permission to live in the building.

After much deliberation we decided to buy it. It was not our 'ideal' of a bush block, but it would be a place of our own, on terms we could afford – far better than renting – and we could always sell it later (but we haven't – yet!). Also there was no evidence of there having been a garden around the building, so we thought the soil should be relatively 'clean' (free of pesticides and other chemicals). This was a big advantage.

Initially we lived in two rooms, the main hall and the vestry. We have gradually added verandahs, a mezzanine with bedrooms underneath, a dining room, laundry, toilet, and converted the vestry into a bathroom and a pantry. One of the first things we did was lower all the windows. As the building had been a church, you couldn't see out of the windows when you were sitting down! We still have plenty of finishing off to do on



Our renovated church surrounded by organic gardens – not tidy, but full of surprises.

the house, but it serves us well.

In moving to the country our main aim was to have as much control over our lives as possible and to develop a self-reliant family-based lifestyle. We wanted to provide, healthy natural food for our family, free of pesticides and artificial additives. With this goal in mind we set about establishing a fruit and vegetable garden.

First of all we established a border of native plants to develop a sheltered microclimate, provide habitat for native birds and privacy for us. Apart from the vegie garden and fruit trees we also

planted large areas of berries to provide us with a quick source of fruit and a cash crop. To establish our vegie garden we rotary-hoed the area in the autumn and spread truckloads of chook manure over it. This killed off all the weeds very successfully. We mulched it with straw, left it for the winter and planted into it the following spring. It was a great success.

Having since become aware that chemical residues can accumulate in animal manures, and subsequently our soil, we no longer import them. We now make all our own compost from garden

waste and manure from our own animals. However, we do buy in straw mulch as 'clean' as we can get it. We have also stopped cultivating the ground. Compost is placed on top of the beds, broken down mulch and soil from the trenches between the beds is raked or shovelled back onto the beds over the compost, the beds are then remulched with straw and planted out. Areas around fruit trees and berries are not cultivated at all but are planted out with comfrey, tansy, lad's love or flowers.

The severe winters we have here have resulted in some changes to our initial ideas. Some plants do not do well in the very frosty, cold, damp, winters. The ground takes a long time to warm up in spring. Some plants do not develop properly in the short time available, so about six years ago we established a large greenhouse with plants planted in the ground. This has enabled us to extend our growing season by several months. Tomatoes, capsicums, cucumbers, eggplants and rockmelons all do well and fruit long before they would (if at all) in the open garden. We can also grow plants which would not survive the winter if they were in the open, a lime tree, passionfruit, guavas and even one very small pineapple (just for fun!).

We also try to grow varieties of plants which are suited to cold climates, that is those which have a short season. We have found Phoenix Seeds in Tasmania a good source of seeds for this climate. Miracle sweet corn and Kotlas tomatoes both do well in the open up here. We collect as much of our own seeds as possible, collecting from those plants which have done well and obviously don't mind the climate. Not only is it cheaper to collect your own seed, but you get such large quantities you can afford to plant thickly and thin out later, as well as planting extra in case the birds or insects move in. We also encourage any self-sown plants - they always seem to do better, probably because they have germinated in exactly the right spot. This does not make for a very neat and orderly garden, but it does provide plenty of surprises and interest.

At present we keep a milking cow and her calf on agistment next door (for manure, milk, yoghurt, cream and meat), twenty Light Sussex hens and a rooster (meat, eggs and manure), three Buff Pekin bantams (pets), one horse (manure and pet), one ferret (for the occasional rabbit), one dog (to deter snakes),

one old, one-eyed cat (pet) and numerous koalas, native birds and possums (for their scenic and nuisance value). In the past we have also kept sheep and pigs for meat.

Over the years we have gradually acquired the skills to help us towards achieving our goals of self-reliance and control. We now know how to raise and butcher our own chickens, pigs and sheep, milk cows, mend and maintain cars, mowers, pumps and fences, grow fruit and vegies, make bread, butter, yoghurt, baskets . . .

The list goes on and we are still learning. It's a great life but it does require persistence, determination, and, most of all a lot of hard work.

HOME EDUCATION

Deciding to educate our three children at home was part of our overall philosophy of having control over our lives. It was also a lifestyle decision because while being very rewarding it does require a huge commitment of time and energy.

Given the current rate of change in our society we believe it will be important for adults of the future to have good self-esteem, be self-motivated, able to take initiative, be creative in their thinking and flexible in their approach to life. It is also our belief that these goals are more likely to be achieved by home education than in the school system which must spend much of its time organising large groups of people, with no time to meet the needs of individuals.

We wanted our children to develop a positive attitude to learning and retain their natural curiosity. To see life as a

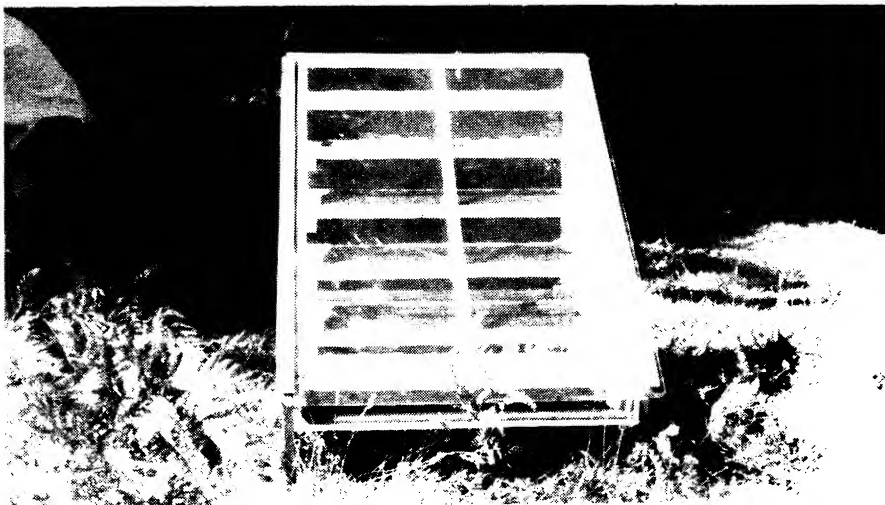
learning process. Our experience has shown that children and adults learn best when self-motivated, interested and on a one-to-one basis. We felt that all these goals could best be achieved in a secure home environment which could respond to their individual learning needs as they arose.

The main disadvantage of home education is that there are not enough of us in the country. Because the local children are in school most of the time we do have to make an extra effort to get together with other home educating families for social activities. We are all in the same boat so travelling and organisation are shared. We have all made many good friends whom we visit or see regularly on excursions and camps. It does require some effort, but is of great benefit to the whole family.

We feel that we have been very privileged to spend so much time with our children, sharing in their successes and failures first-hand. There are as many approaches and reasons for home educating as there are families doing it. If you would like more information on home education send an SAE to the Alternative Education Resource Group, C/- 1/138 Kilby Rd, Kew East, Vic 3102. You will receive an information sheet with a reading list, a list of contacts, information on the legal position in Victoria, local get-togethers and excursions etc.

SOLAR FOOD DEHYDRATOR

Before living in Ruffy we had lived and gardened near Bendigo and, in combination with gardening, dried excess garden produce for storage. On moving



The solar food dehydrator we developed for our own use and refined for commercial marketing. It folds down for storage when not in use.

here we still wished to do this, but found our drying process being constantly interrupted and set back by summer showers. As a result we developed a drying cabinet which speeded up the drying process and protected the produce from rain, insects and heavy dew at night. It has been a great success and we have been using it for six years.

Many people suggested we should make them to sell. Always on the alert for ways to supplement our income we decided to give it a go. We redesigned our original model into a smaller more compact one which could be folded up and put away, enclosed our carport to make our 'factory' and went into the solar food dehydrator business.

Our dehydrator is called the Solar Safe. It consists of a timber cabinet covered in clear polycarbonate on the front and sides. It has flywire protected vents at the bottom front and top back. When set up in a sunny position facing north, the sun's heat enters the cabinet and is trapped (as in a greenhouse). Fresh air is drawn in through the bottom vent, is heated by the sun, rises to the top of the cabinet, taking moisture out of the fruit as it does. The moisture laden air then exits through the top vent.

The cabinet is completely waterproof and can be left out overnight or if it rains. Fruit is completely protected from insects and other animals.

I find that dried fruits and vegies take up much less space than bottled fruit and I can use them for a greater variety of things: muesli, cakes, biscuits, hiking snacks as well as reconstituting them if I want to.

If you would like a brochure about our Solar Safe please write to: RMB 2317, EUROA, Vic 3666.



CLOVERS THAT COPE WITH SALT

by Helen Waite, Tatura, Vic.

The hunt is on for white clover varieties with better salt tolerance. In many parts of the irrigation areas of south-eastern Australia, the growth of pasture species, particularly white clover, is severely affected by rising water tables and increasing levels of soil salinity.

For the past eight years, a research programme now led by Dr Mary Jane Rogers at the Institute of Sustainable Irrigated Agriculture (ISIA), Tatura, has been selecting and developing pasture species with improved salt tolerance.

The purpose of the project is to provide farmers in the irrigation areas of northern Victoria with a range of highly productive salt-tolerant pasture plants, particularly white clovers.

The research is being carried out in the greenhouse and in the field. 'In the greenhouse, plants are grown hydroponically over a range of salt concentrations,' Dr Rogers said. 'In the field, plots are irrigated with saline water obtained by mixing saline groundwater with non-saline channel water.'

Already there have been some successes. 'We are now able to recommend readily available white clover cultivars that are more salt tolerant and we're looking to expand the range of salt-tolerant varieties through our research programme,' Dr Rodgers said. Of the currently available white clover varieties, Haifa and Irrigation have been found to be the most salt tolerant. Meanwhile the research programme has seen a significant improvement in the salt tolerance of white clover over two generations of trials in the glasshouse. These plants will now be tested under saline field conditions with the aim of releas-



ing new salt-tolerant varieties in the future.

Other important clover species such as subterranean clover, strawberry clover, balansa clover and Persian clover are also being assessed for salt tolerance. Similar field studies are underway to identify salt-tolerant cultivars of lucerne.

The salt tolerance of a range of 'new' or more unusual agricultural species is also being assessed and ISIA has accumulated a large collection of potentially salt-tolerant plant seed. One of these new species that is being tested for salt tolerance is sulla clover, a highly productive legume which has been introduced from New Zealand.

This exciting work is just one part of a wider plan that is supported by the Salinity Programme Advisory Council through the Shepparton Irrigation Region Land and Water Salinity Management Plan. The plan attacks the problems of salinity on many fronts, including subsurface and surface drainage and the monitoring of nutrient and salt loads in drainage water and waterways and changes in watertables.

Reprinted from *Saltforce News*, June '95. For all enquiries contact: The Editor, Department Conservation & Natural Resources, 5/250 Victoria Pde, East Melbourne 3002.



Kookaburra Park Eco-Village

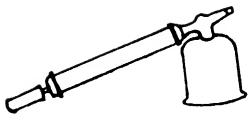
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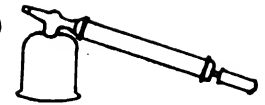
We are looking for people to come and take part in this wonderful living experiment. People who are seeking change. People who are committed to a more sustainable way. People who want to eat & grow organic food. People who want a better place for their children. All the infrastructure is in place including sealed roads, reticulated

water, lakes and an agriculture area. A Community Hall is to be built in Rammed Earth this year. The property is 485 acres and has 124 one acre freehold sites. The remaining 360 acres is owned in common by all. This is a great place to build your dream home. The climate is perfect and the people already here are fantastic. Don't delay, come today.

Contact: P.O. Box 713, Bundaberg, Qld, 4670. Ph: 1800 061 689 A/H 071-572759, 071-572850.



SUPER, SAFE SPRAYS



by John Armstrong, The Gap, Qld.

Is spraying really necessary when it comes to controlling insect pests in the garden? In many cases, the answer is no, but there are exceptions to the rule. The more you spray, the more you have to spray. The reason is linked to nature's fascinating insect predators that literally feed on each other. For instance in spring tip growth on rose bushes will be smothered with aphids. If ignored, they won't go away. The population will explode, seriously damaging the rose buds. Spray with a toxic insecticide and the aphids will go away. But so, too, will the ladybirds, lacewings, hoverflies, wasps and spiders for whom aphids are a favourite food.

After spraying, the area around the bushes will look like a miniature scene from 'The Killing Fields' with hundreds of insect bodies. But, within a few days new aphids will appear and this time there will be no predators. To do nothing is usually not an option, because aphids can ruin your display. Fortunately,

ly, aphids are stupid. If you can dislodge them, they fall to the ground where they starve or they are eaten.

A cost effective alternative is squirting the tip growth of your rose bushes with a jet of cold water which will remove or drown 80-90 percent of the aphids and spare the beneficial predators. An alternative is to spray the rose bushes with an aphid repellent, containing garlic, eucalyptus or an aromatic herb.

To make your own garlic spray, mix: 100 g chopped garlic, two tablespoons of mineral oil or paraffin oil, 30 g of pure soap and half a litre of water. Soak for at least 24 hours, filter and store in a plastic container. Use 20 ml or 30 ml for every litre of water when spraying. This mixture is also effective in repelling caterpillars and slugs. Respray after rain or after overhead watering. Commercial sprays containing garlic and eucalyptus oil are available. Organic sprays containing pyrethrum, derris dust or nicotine sulphate should not be

used as they will also kill predators.

Caterpillars, like aphids, can be damaging in large numbers. Small numbers can often be ignored because they don't eat as much and are readily devoured by wasps, beetles, spiders and birds. However, there are exceptions to the 'don't spray' rule. A big problem for many gardeners comes from the caterpillars of the cabbage white butterfly and, perhaps, light brown apple moth. The cabbage white seeks out cabbage, broccoli, cauliflower and other brassicas by smell or silhouette. Surrounding these plants and interplanting with strong aromatic herbs, like lavender or mint will confuse the butterflies. If serious damage is imminent, spray with Dipel, a nontoxic bacteria that kills caterpillars but not other insects.

Take care to keep even organic sprays away from children and take common sense precautions when using them. They are not safe to play with, ingest, breathe in, or apply to skin. See GRs 109 & 76 for more organic sprays.

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


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IN PRAISE OF THE EGG

by Jane Smith, Kilsyth, Vic.

'Raw egg is a source of living collagen,' a biologist said in the course of an evening lecture I attended some years ago. 'And collagen is the stuff that literally holds us together,' the professor added.

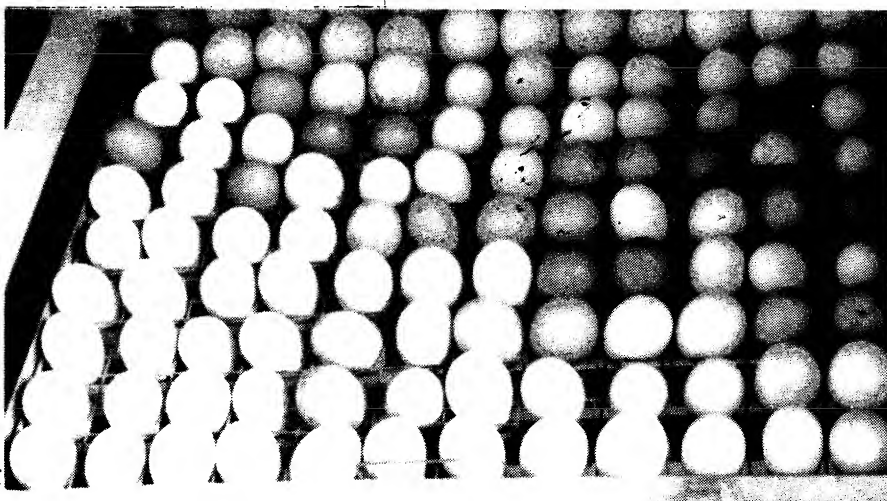
When I went home and opened the fridge to take out the milk jug for hot drinks all round that cold winter evening, I looked at the eggs lined up in their box on the fridge shelf. Suddenly I realised that many of the old remedies I'd recorded over the years related to the use of eggs, both inside and outside of the body. Could it be that a wonderful, tissue repairing material was available to us so readily as to be mostly overlooked?

When I was a child during the years of the Depression and World War Two, everybody we knew had chickens in their backyard. Usually located near the back fence and shaded by fruit trees that dropped bird-damaged fruit onto the eager chickens below, the wire-meshed enclosure was a ubiquitous part of suburban life.

From our earliest years we learned about feeding hot wheaten mash to the chooks in the early morning. Vegetable peelings saved from the day before would be mixed with the ground wheat as it cooked, and carefully avoided when we scooped our fingers into the warm mash and thence to our mouths on the way down the yard to the chook pen. Parents didn't approve of that for some strange reason, in those days before the value of whole grain cereal for people was widely recognised. Processed breakfast cereal never tasted anywhere as good as full-bodied chicken mash.

In the evenings we scattered wheat to the chickens with a sense of power, watching them rush to peck up the grain from the earthen floor of the pen. Even the tough old rooster called a temporary truce when we came armed with grain, and forgot to peck at our bare legs as we retreated through the wire-meshed door.

Never a look of thanks either from those beady red eyes when we tossed lettuce and cabbage leaves over the high wire, and milk thistles gathered by the armful down by the railway tracks near the beach. Going over to the beach with a bucket and spade to gather shell grit



In these days of worry about high cholesterol, many people are reducing their egg consumption. There is more to the versatile egg however, than meets the eye.

was one of the great pleasures of staying on holidays with my grandparents. 'Shell grit puts strong shells on the eggs,' our grandad used to say, and he'd pour the finely crumbled shell grit from the high and dry part of the beach, into a shallow trough inside the chicken enclosure.

With all that green feed and shell grit, the eggs we ate were always thick shelled, the yolks sat high on the whites when the eggs were broken into a dish, and the yolks were the colours of marigolds.

Eggs formed probably the main protein in our diet, for meat had to be bought and money was short. We ate poached eggs that sat on a little bed of finely chopped parsley on toast. And eggs scrambled with milk from our grandad's house cow, Daisy, who grazed on the coarse green grass down by the beach and who was milked in the side lane near the cottage. There were soft boiled eggs sitting in Easter-gift china egg cups with roosters and rabbits on them and 'Made in Japan' stamped on the bottom.

Hard boiled eggs were mashed to make school sandwiches and when a school bag was opened the pungent odour of sulphur rose to cause us some embarrassment.

When my young cousin Kevin, who lived two doors along on the sandy beach road, burnt his hand on the wood stove, my Auntie Sarah didn't hesitate. She

held his hand in a basin of cold water for as long as it took her to tell a little story and soothe him until the sobbing stopped. Then she cracked an egg and strained the white of the egg into a bowl to separate it from the yolk. The white of the egg was smoothed thickly onto the burned hand.

Then Auntie Sarah put a little brandy into the sprinkle bottle she used for damping down the starched linen for ironing, and she sprinkled the brandy over the egg-coated small hand, to keep the egg from going off, she explained. Many years later I read that this egg and alcohol combination was used to treat burns in Russia long ago.

The egg coating and brandy dried quickly and Kevin stopped crying, the pain soothed away. By the time they were able to visit a doctor in those days of little or no transport, the burn was healing well and nothing more needed to be done.

Years later when I first began collecting old remedies and keeping note books, I was interested to record the story of an elderly lady whose fine English complexion was preserved, she felt sure, in the outback climate, with the daily use of raw egg.

First she would separate the white from the yolk of the egg, I was told, putting each part into a separate bowl. Then she would stand in front of the bathroom mirror and smooth the yolk

over her face and neck and the backs of her hands. After ten minutes this would form a stiff mask that she was glad to rinse off with splashes of warm water. Then the white of the egg was smoothed over the same area of skin. Another ten minutes of this tight mask of stiffening egg, and this too would be rinsed off. The skin was patted dry and a moisturising cream applied. The proof that it worked was there for me to see in her fine and almost wrinkle-free skin.

Her husband's skin looked surprisingly good too, for someone who worked outdoors all of the time. His secret, she said, was honey. Every night before he got into the bath he'd rub honey on his face and neck, and honey is a fine old moisturiser. 'No need to end up with a face like a road map,' the old farmer joked when his secret was out, 'Even if one is a bloke?'

Raw egg was the basic ingredient in a foot rub lotion that was recommended for arthritis and rheumatism. I rather wondered if it worked along the same lines as the Bach remedies, in that the skin of hands and feet is known to be absorbent.

The person who told me this remedy was sitting in the cold wind at a handcrafts fair, minding her tiny stall. When I made a cheery remark about putting myself back on the nightly teaspoon of cod-liver oil to avoid winter aches and pains, the woman smiled and said she'd already done that. As well, she'd been using her raw egg foot rub every night. Always alert for new information on home remedies, I asked her about it. I was told that The Remedy was used in England as far back as she knew of in her family.

You take one raw egg and beat it a little. Then you put it into a small jar with a screw-top lid and you add one tablespoon of vinegar and one tablespoon of turpentine. It has to be pure

turpentine, not the mineral turpentine. Put the top on the jar tightly, shake the contents and keep it in the fridge.

Each night or morning, whenever you take your warm bath or shower, apply this lotion to the warm dried feet, soles and all. No need to rub it in, just smooth it on and let it dry there, that's all, and just use the lotion on the feet.

When I made up my own egg lotion and tried it out, I was surprised to find that it dries quickly and without stickiness. The turpentine smell is mild and soon passes. I'm not sure what it might do for my low-key arthritis in time, but already I can see that it makes a good soothing lotion for roughened heels.

Old remedies keep turning up on the many uses of eggs, and even the shells are of much value. Eggshells crumbled and thrown on the garden, both enrich the soil and deter white cabbage moths. Eggshells can be soaked in water and the water used next day to water house plants. Or, the eggshells are soaked in water for an hour or two and the water taken filtered as a drink, for the calcium content.

Raw egg has been used in the absence of medical help to ease diarrhoea. It is said that it helps if the white of an egg is beaten with the juice of half a lemon to make a stiff foam, and the foam eaten with a teaspoon.

The whites of eggs feature prominently in the Pritikin Diet, egg whites being a wonderful binder of other foods. When hard-cooked and sliced the egg whites enhance salads. This correlates with a centuries-old Devon remedy that was recommended for circulation problems such as heart disease, where the blood vessels are slowly becoming choked and narrowed.

The remedy was to take the whites of two eggs, unbeaten or stirred, at the same time once a day, every day, as a single dose. The eggs should be prefer-

ably a week old, and nothing else should be added to them to flavour them. There's something in the egg whites taken 'live' like this, old timers believed, that slowly dissolves the substance coating the insides of the blood vessels.

Raw egg hair tonic was also said to contribute to the rich, lustrous hair piled high on the heads of Edwardian ladies in old sepia tinted photographs. I suspect that bolstering sausages made from human hair had something to do with it as well, but the gloss on the hair might have been due to the use of home hair products like the egg hair tonic. To make the hair tonic, separate the yolk of an egg from the white, mix the yolk with a pinch of salt and massage it into the scalp for about ten minutes. Then shampoo it out.

Nowadays, if we prefer them, we can buy free-range eggs at some supermarkets as well as at health food stores, should we be not so fortunate as to raise our own chickens or know anybody who does. If collagen is truly the stuff that holds us together, then a source of this valuable material lies right at hand, within the ordinary egg.



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OUR LAST HOUSE

by Peter Carr,
Repentance Creek, NSW.



Our activities over the past few years have been, and still are, directed to the building of our last (and I mean it) house. We have been quite comfortable in our Colorbond barn (see GR 83), but the council considers it to be merely a temporary dwelling so we were moved to contemplate erecting something more fitting, in the eyes of the council, for human habitation.

We knew what we wanted as we had been discussing the idea long before we fled suburbia for our current rural bliss, but there was the problem of a site. Our land is sloping, or more accurately, relatively precipitous, so the task was to find a bit that could be flattened out without leaving a cliff of red dirt to stare at from the front door. We selected a site which looked reasonably flat, where the house would be sheltered from the south-westerlies by a big booyong tree and thicket of surrounding scrub.

Despite the apparent flatness, when the dozer had finished levelling the site the earth bank at the front of the house was up to ceiling height for most of the verandah, and we had to carve the drive down through one corner to get to the garage. The dirt that came off the site was enough to provide walls for two small dams in a nearby gully and the dozer operator took away 27 loads of good red topsoil in his ten-metre truck, for which he paid me \$270, a nice little windfall.

We then covered the raw banks with about five centimetres of hay, covered it

with wire netting to keep it in place and planted native shrubs and groundcovers to improve the view. Despite the drought which started shortly after the planting, most of the vegetation has grown well, looks good, and we won't be inundated by a wall of red mud next time we have a cyclone.

Marg is convinced that life is made easier for the senile if steps and stairs can be avoided so, unlike our previous house (and our barn), this new edifice is single storey and as close to the ground as possible. If I survive into immobility she will have no trouble in barrowing me all over the place. We came up with a plan that is a combination of Yorkshire Dales stone cottage, Federation style Australian farmhouse and Pompeian villa, with a Nordic timbered effect. This was because we wanted to use materials available on the property to build something suited to our climate: wide verandahs and high ceilings for coolness and sheltered rooms to retire to when we want to avoid the chilly south-westerlies which can make life miserable at any time but particularly in August. Hence the internal courtyard idea, picked up from a visit to Pompeii in 1959 when we visited a house there with a delightful atrium. The floor plan can be seen on page 21.

The internal walls are three-metre high, 45-centimetre thick stone walls, the rocks gathered from the property over the previous three years on and off, mostly by Marg and me with occasional

outside aid. This area is generously dotted with basalt floaters ranging in size from peas to room-sized lumps. Nearly all have at least one flattish face, and, if you look hard enough you can find ones with reasonable approximations of right angles to make corners at doors, windows, etc. We made it hard for ourselves as most of the outside windows go from floor to ceiling so that the stone-masons were continually on our backs to provide more corner rocks.

The red soil colours the rocks a reddish/brownish/yellowish colour where they have been in contact with it, the atmosphere weathers them a dun brown colour and split faces come up a bluish/greenish/grey. They come in all sorts of shapes. We have a stone map of Australia (including the apple isle) at our front door and another that bears a vivid resemblance to a petrified coelacanth (primitive marine bony fish). The frames for the rooms are steel as are the roof trusses. We chose a green Colorbond roof as it makes the house unobtrusive and waterproof (no broken tiles or ones torn off in gales). The roof was put in the hands of a local plumber as I don't fancy myself clambering about on roof trusses waving a six-metre sheet of Colorbond.

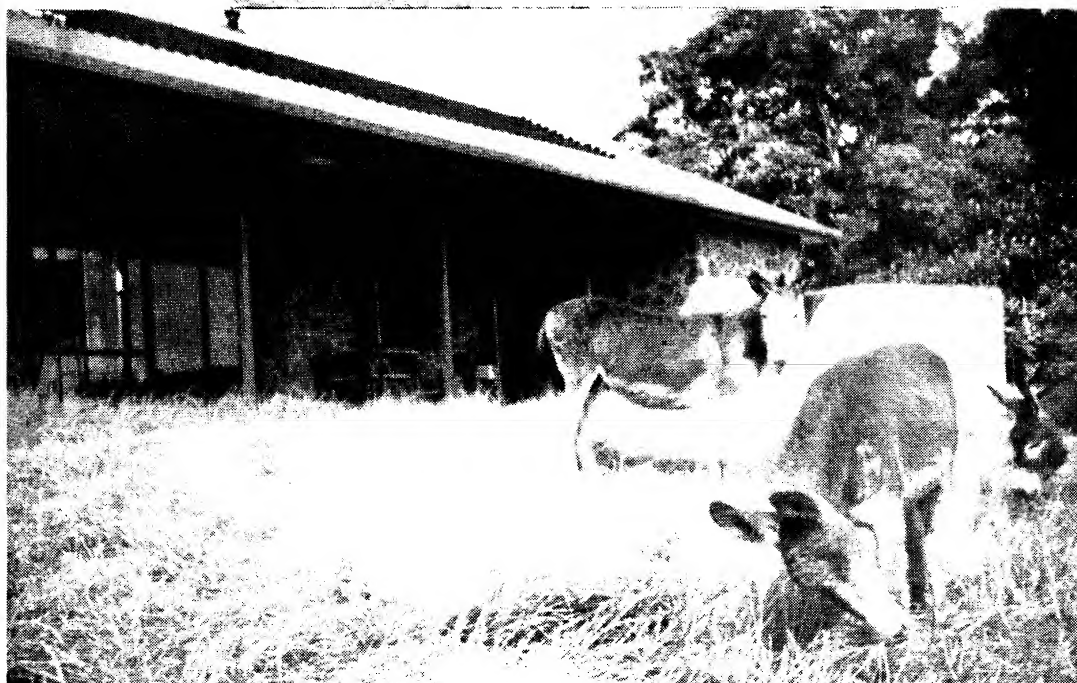
The interior walls of the rooms are clad in 100 x 12 millimetre tongue and groove V-jointed camphor laurel lining boards, nailed perpendicularly. The same boards clad the internal verandah walls horizontally for a bit of contrast.

On our farm we have a steep norther-

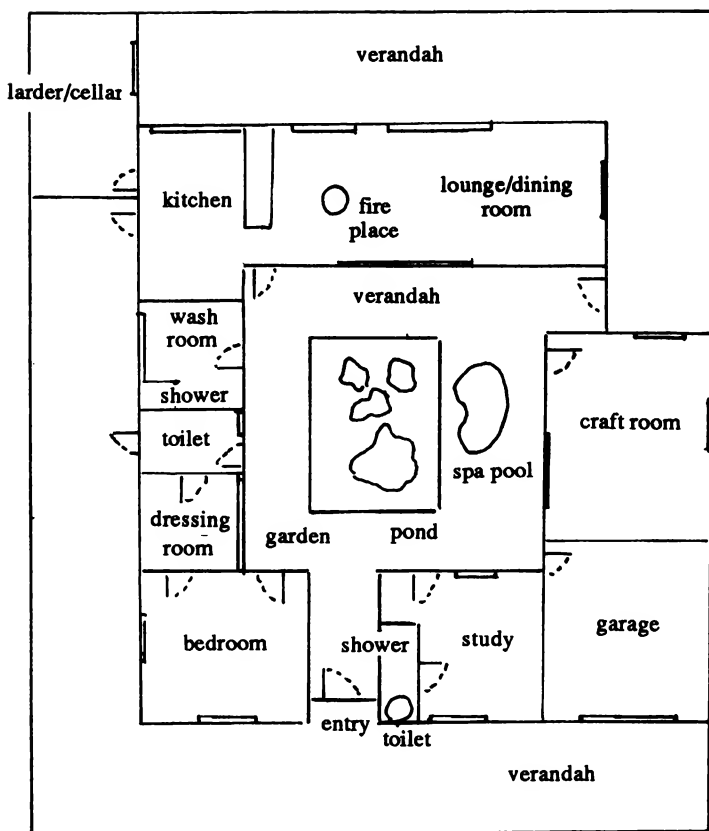


A close shot under the back verandah. All those right-angle corners stones took some finding.

Back view of house, showing stonework, large windows and wide Colorbond-lined verandah.



Some of Marg's donkeys help supervise the building. They're great lawnmowers.



ly facing slope where, until 1946, some poor cocky grew bananas. When the last of the topsoil washed down into the creek the area was let go back to scrub. I enticed the local sawmiller to check the regrowth for me and he considered there were enough millable logs in the area to provide cladding for at least the interior walls, if not the courtyard walls, too. (Camphor laurel is an introduced weed which threatens to crowd out our native flora up this way. Where the camphor laurels were, there are now natives beginning to spring up.) A local logger cut 21½ cubic metres of logs from the scrub, the sawyer sawed them into boards, they were kiln dried and milled at a local joinery works.

When they were delivered, Marg and I spent the next four months, on and off, putting up knot holes (camphor laurel rivals cypress pine for knot holes) and sanding them smooth while a carpenter mate put them up in spasms of various length. I could have done it myself, but I reckoned that we had enough on our plates with the sanding and, anyway, late one afternoon I made an amorous gesture towards the still whirring blade of a docking saw and spent a couple of days in the local hospital recovering

from a severed ligament and a damaged tendon sheath in my right index finger. Never get overfamiliar with a saw of any variety. Until my finger healed (the hand was in plaster for a month) I had to rely on Marg to do the sanding with the heavy belt sander while I learned to use the orbital sander left-handed. Without the expert aid of my mate we wouldn't have beaten the undertaker by much into the finished house.

Just about everything else was and is being done by the usual experts. We had Colorbond ceilings on the verandahs and the rooms with wet areas as the mildew does very well on plaster ceilings up here and, equally as important, Colorbond comes already painted and I don't fancy painting ceilings of any height, even less at three metres. The floor will be covered with glazed tiles for similar easy-care reasons. Furthermore, moths give woollen carpets hell up this way so tiles should save us recovering the floor. They may be a bit hard on the feet, but I plan to adopt a slightly more sedentary life after this with my feet UP.

Next was painting which Marg and I both abhor. I'll have to paint the plaster ceilings of five rooms as even I could be

convinced that a tin lining in the lounge room etc, is a bit infra-dignitatem, but there was still the question of the walls. There is a locally made product called Organ Oil, manufactured in Byron Bay, but not, as the vulgar might think, from boiled down organs of any kind. The manufacturers swear that it is environmentally friendly, if not amorous, and it brings out the colour of the timber beautifully. It smells a bit like an up-market bath oil, in small doses, but after slapping 20 litres of the stuff on acres of camphor boards I find it a bit wearing. Of course you get it all over yourself and I have just about had smelling like a persistent patron of a superior style bordello. Thank goodness it is nearly over.

That then is the saga of our house building. It might seem that others did more than we did, but we contributed a fair bit. The material for the outside walls cost us a few gallons of diesel for the tractor and some sweat, plus a lot of exercise expended on scratching – our bush up here abounds in ticks and scrub mites, the latter revelling in attaching themselves to sweaty groins and armpits. They are an infinitely small version of a tick and one cannot see them. After gathering loads of rocks in summertime we kept ourselves in decent seclusion lest the local public thought our efforts to relieve the itch in the aforementioned areas an indication of the grossest sort of bad manners. The cost of getting our own timber was about half what we would have had to pay commercially, and the wages of a puttier and sander would have put us in the poor house.

Finally, painters don't come cheap either. So I think that we have made a considerable financial saving by doing those things we could do and leaving the rest to experts. As an owner builder I have learnt that it is better to get expert advice before making up one's mind. We had a complete steel frame put up when the exterior walls could have been free-standing as they are solid enough to hold up roof trusses. If one sends timber away to a joinery it is wise to know exactly the total length of the material as it is not impossible for some to go astray and if you only have suspicions rather than evidence there is nothing you can do about it. Finally, be prepared to wait for subcontractors. If building is brisk the owner builder keeps finding himself put to the back of the queue.

HOUSE PAINT – A GLOSS OVER

by Rob Small

In the 1990s people are becoming more concerned about the effects on health and the environment caused by the various building products used in the home and work place. For example, many will be aware of the allergic (and more serious) responses caused by out-gassing of formaldehyde from the synthetic resins used in composite boards (particle/chip board, plywood etc), carpets, glues, insulation foams, paints, and cleaning products.

Others will be aware of the intractable wastes and pollution spills associated with the petrochemical (and petroleum) industry from which most of the organic chemicals used in the manufacture of these building products are derived.

Paint is one such product used by nearly everyone at some time in their life but about which they know very little. This is not surprising because paint cans often display labels which do not disclose any information about the contents, but advise users to work in 'well ventilated areas' or that the product may be poisonous.

Research conducted overseas, and recently confirmed in Australia¹ has shown that inside the home or office, air pollution can be much greater than on a busy urban street. This has given rise to the term 'toxic (or sick) building syndrome' and those affected report a variety of symptoms including headaches, nose, throat and lung irritation, eye irritation, feelings of disorientation, and fatigue. Up to 300 different chemicals may be released from building materials and are thus present in the house or office atmosphere.

Paints and varnishes are primary contributors to this interior air pollution, with the greatest effects lasting up to two months after application but continuing for periods of up to five years¹. Often do-it-yourself painters may feel sick or suffer headaches from fresh paint, but for those who work as professionals the medical evidence is far more serious. For example, a World Health Organisation report² released in 1989 revealed that professional painters had a 40 percent higher than normal chance of contracting lung cancer, a higher risk of nervous system disorders, and that

female painters were likely to suffer frequent miscarriages. It was also found that painters were more prone to producing children with birth defects, had a higher than average chance of developing brain tumours, cancers of the stomach, lymph glands, larynx, kidney, prostate or liver. Medical journals contain many case studies which support these findings, and when compared with the known and suspected reactions to chemicals found in paints, there are remarkable similarities. More will be said about this later in this article but first a brief history and update on the industry is required.

Originally paints were quite simple mixtures of binder (glue), and pigment with a solvent like water sometimes added. Binders such as beeswax, egg yolk, plant gums, or flour were mixed with ground pigments of ochres, clay or charcoal to provide paints which were used to decorate caves. The Egyptian and Greek cultures perfected encaustic (wax + pigment) painting which was used to decorated temples and other important buildings. Later as the technology of domestic building progressed, lime-washes ($\text{Ca}(\text{OH})_2$ + water) were much used. Paints require mostly white pigments, and the first strongly opaque white pigment was obtained when methods were found to supply sufficient quantities of lead carbonate ($\text{Pb}(\text{OH})_2$, PbCO_3). When this was mixed in raw or boiled linseed oil it became a paint which could be coated onto many different surfaces and this expanded the range of paint applications on buildings. Simple formulas of this kind continued to appear in chemical formulae texts until the 1930s³. (Australian houses painted prior to the 1950s are highly likely to contain lead/linseed oil paints.) As the danger of lead contamination became more apparent, paint manufacturers were forced to convert to using zinc oxide (ZnO), and later titanium dioxide (TiO_2), both of which are nontoxic. During the same period simple binders like linseed oil were quite quickly replaced by synthetic resins derived from petroleum.

Prior to World War II, painting was still very much an activity restricted to the professional painter and paints were used more sparingly. However, with the



advent of plastics technology, abundant petroleum, and the growth of the post-war consumer society, paint companies were able to offer low cost products and quickly became skilful at developing markets that were previously nonexistent (ie the 'home handyman' market). Sales and new uses for paint continued to increase and today's world market is worth about \$US 35 billion. Western Europe, USA, Canada, and Japan, represent 85 percent of the market while the rest of the world represents only 15 percent⁴! ICI (Imperial Chemical Industries) is currently the world's biggest paint company and in Australia distributes under the trade names Dulux, Berger, Hadrian and British Paints.

Although some rather remarkable technological advances have been made by the paint industry, it would be fair to say that consideration of effects on inhabitants, workers and the environment has not been part of the technoevolutionary process. The focus has generally been on product durability, economic competitiveness, and expansion of the market. Today paint companies are being forced by governments and consumer pressure to take the environment (both interior and exterior) into consideration. This is seen by some as the 'bane' of the paint industry⁴, and in the future we may see Australian factories moving off-shore into South East Asia where pollution legislation and worker occupational standards are lax or nonexistent.

It is very difficult even for a chemist to make sense of today's paint formulas³. Most of the ingredients which may include plasticisers, antifoaming agents, synthetic polymers, fungicides, bactericides, organic solvents etc, are now identified by trade names which reveal little of their real nature. It is best to resort to surface coating manuals and textbooks⁴. The binders now include alkyd resins,



vinyl acetate and methyl methacrylate (acrylics), styrene-butadiene resins, urea formaldehyde, melamine formaldehyde (amino resins), epoxy resins and polyurethanes. Of these, the most commonly encountered products contain alkyd resins, acrylics, polyurethanes and epoxy resins.

Alkyds are in part made from vegetable oil by an esterification reaction. These are most often used in enamel (oil-based) paints which are thinned with turps.

Acrylics and *styrene-butadiene polymers* are mainly used in water-based paints for interior and exterior use.

Polyurethanes and *epoxy resins* are mostly used in varnishes and floor finishes.

Because of the fact that enamel paints, polyurethane varnishes (organic solvent based), and epoxy varnishes are not water soluble, they usually contain some aromatic hydrocarbon solvents like *xylene* or *toluene*. Turps which is often used to thin these products also contains about 25 percent aromatic hydrocarbons. The toxicology of aromatic hydrocarbons has been well studied and the effects on the human body include headache, convulsions, central nervous system damage, respiratory irritation, dizziness, kidney and liver damage, fatigue, hallucinations, dermatitis, carcinogenesis, teratogenesis, and mutagenesis⁵. (The list is far too long to include here, interested readers should consult the references.) Paint companies have been directed by governments and medical bodies to move away from using these types of solvents although products containing them are still quite widely available on hardware shop shelves.

Acrylic water-based or latex finishes are slowly replacing these products since they are considered safer. However, the term water-based is not entirely true since these paints require co-solvents like ethylene glycol (1,2-ethanediol), or a glycol ether substitute to work properly. Glycol ethers are known teratogens (cause birth defects) and banned from use in many countries^{4,6}. They can still be added to Australian paints. Ethylene glycol causes skeletal malformation in rats, albuminuria, tremors, cyanosis, anuria and the presence of oxalic acid in the urine^{5,7,8}. Apart from the solvents,

methyl methacrylate monomers may be released from acrylic paints and cause eye and mucous membrane irritation, and drowsiness. They are linked with anorexia and also suspected of causing carcinogenesis and mutagenesis⁵.

Polyurethanes are made from isocyanates, the chemicals associated with the world's worst incident in India in 1984 (methyl isocyanate). They cause lung irritation or lung damage and are sensitising chemicals. (This means that after a certain amount of exposure one may become highly sensitive in an allergic way, reacting to even very small doses of the chemicals^{4,9}.) They may be released as monomers from both water-based and organic solvent-based polyurethane varnishes. The combination of volatile aromatics and the release of isocyanates makes polyurethanes one of the most hazardous interior use products on the market. (It is especially important that women in pregnancy avoid the fumes of such products.)

Other materials that paints may contain include organic and inorganic pigments which have varying degrees of toxicity. Cadmium, lead, chrome and nickel containing pigments may still be added to some paints. In addition, unidentified fungicides, bactericides and algicides may also be present. Zinc chromate which is added to metal primers has now been found to be strongly carcinogenic and will no longer be produced. It is however still available on shop shelves.

Paint companies will argue that in 'well ventilated areas' airborne concentrations are harmless, but often such ventilation is not achievable, particularly in air-conditioned buildings or older buildings with small windows. Another important consideration is that there has been little investigation into the synergistic effects of the range of airborne chemicals which may be present in the interior atmosphere. A final point is that many materials added to paints which were said to be safe originally are now banned. This process continues today.

From the point of view of the greater environment it must also be considered that these products contain plastic polymers and solvents with very slow rates of biodegradability. (Try putting a dried out lump of paint in the compost heap.) Even acrylic paints should not be washed

down the drain, for it is an environmentally irresponsible action. Paints and solvents that contain aromatic hydrocarbons are strongly ecotoxic and should not enter any water systems.

To those who suffer from chemical sensitivities or who would prefer to avoid using the conventional products there may be some good news in that some alternatives are now available. In Australia the brand names Livos and Bio Products are becoming better known. These companies supply a full range of paints and varnishes that are made from renewable resources (natural oils, tree resins, waxes and cellulose) and mineral pigments which, as mentioned earlier, are claimed to be nontoxic and environmentally benign.

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ROUND THE MARKET PLACE

We hope you enjoy this feature introducing new products relevant to readers' lifestyles and interests.

SOLAR WATER PUMPING SYSTEM



Bruno Wittwer has developed a pumping system that efficiently utilises solar energy, does not rely on batteries, is cyclone proof, competitively priced and suitable for remote and isolated areas. It consists of a Sun-Tracer which tracks the sun, optimising the efficiency of the photovoltaic cells; a built in Power Maximiser to keep the voltage at the desired minimum level, even in overcast conditions; a Universal Drive, which can be grid or solar powered as well as hand driven; and a Poly-Pump which incorporates a simple but cleverly designed piston to allow the water to flow through a ball valve and eliminate unwanted friction.

The tracker enables the system to work on full power for over eight hours, providing 65 percent more water output in summer conditions than with non-tracked systems. It is able to be adjusted seasonally and can be altered to suit any latitude. The tracker itself consumes little power, fits all brands of photovoltaic cells, returns to its fully eastern position after sunset, and switches off.

For more information on the system and pricing details, contact:
B/W Solar, 9 Newborough St, SCARBOROUGH 6019.
Ph/fax: 09-341-8711.

ROBOTIC SOLAR MOWER

A robot to mow your lawn sounds like science fiction and the stuff that dreams are made of. But in case you haven't heard, Husqvarna has released a robotic solar mower that is able to maintain a lawn up to 1200 square metres in size. A solar powered wire is buried around the lawn's perimeter, the mower's computer is activated and during daylight hours it continuously trims grass using three small metal blades. Cutting height is adjustable, twin collision detectors ensure that the mower stops, reverses, then turns and heads away from anything left on the lawn (the sleeping dog?), batteries need replacing only every second year and it has an in-built burglar alarm if someone attempts to steal it. At around \$5000 it is not suited to many people's budgets, but may be the first in a range of garden machines designed to save fossil fuel and time.

A limited number of robotic solar mowers are for sale from Husqvarna distributors or further details from:

Husqvarna Forest and Garden, Crn Chivers & Debenham Rds,
SOMERSBY 2250. Ph: 043-721-500. Fax: 043-721-322.

BIODEGRADABLE CAT LITTER

Unlike clay or diatomaceous earth-based cat litters that do not break down in the garden, Natty Cat cat litter is made from lucerne and is 100 percent biodegradable plant material. As it quickly breaks down, it releases a balance of important plant nutrients and trace elements into the soil. Natty Cat comes in the form of pellets, which means there is no fine dust to cause eye irritation, it has better absorbency and no smell.

The product is currently available throughout Queensland, with moves underway to establish a distribution and sales network in New South Wales.

For further information contact: Lockyer Lucerne Products Pty Ltd, MS 437, Esk Rd, GATTON 4343. Ph: 074-665-404.

SPREADERS AND SEEDERS

Spreading quantities of fertiliser and seed can be made easier and with even coverage through the use of an Ev-N-Spread broadcast spreader. Designed, constructed and field tested in the US for many years of trouble-free performance and minimum maintenance, the range is now available through a Queensland distributor. Prices range from \$95 for the push model that takes a capacity of 18.2 kg, to \$725 for the tow model that holds 45.4 kg.

The precision garden seeder will plant vegetable seeds in one continuous operation by opening the soil, spacing and planting the seeds, packing the soil and preparing the next row. Prices range from \$190-\$305. Prices are ex-warehouse and do not include sales tax, packing or freight charges.

Further details are available from the distributor: Ellis Equipment, 109 Kingaroy St, KINGAROY 4610. Ph: 071-621-244. Fax: 071-624-682.

NATURAL CLEANING PRODUCTS

The Citro-Clean range consists of cleaning products that are powerful and economical, yet are environmentally friendly. They do not contain salt, phosphates, bleaches, ammonia or petroleum-based products.

Citro-Clean, an organic cleaner based on several solvents from nature, is effective in removing mould, soap residues, cooking oil, lipstick, permanent inks, chewing gum and adhesives, leaving a pleasant citrus smell. It can be purchased from K-Mart stores throughout Australia; in Victoria it is stocked by supermarkets, health food and hardware stores.

The other products in the range, Carpet-Clean, Dish-Clean, Econo-Clean, Multi-Clean and Wash-Clean, are water based cleaners suitable for general and surface cleaning. These are available direct from the manufacturer.

Contact: Wastmac Manufacturing Co Pty Ltd, PO Box 251, 6 Surman Ave, WARBURTON EAST 3799. Ph/fax: 059-662-505.

WATERLESS TOILETS

Composting toilets, because of the constraints imposed by their need for a large holding tank, have been unable to be used in small areas like boats, caravans and mobile homes. EnviroLet has changed all that with the introduction of the compact, self-contained, biological toilet system. It is very easy to install, needs only the same space as a conventional toilet and has a very quick decomposition process due to the heating and mixing procedure after each use. Constructed from durable, easy to clean ABS plastic and stainless steel, EnviroLet is available in four models to suit two or four people, incorporating the options of an electric motor or a hand operated mixer and with or without the heater. Prices range from \$1555 - \$2455. They require no water, chemicals or septic tank system and the end product is rich organic compost for the garden.

Contact: EnviroLet, PO Box 189, BENTLEIGH 3204. Ph: 03-9557-6943. Fax: 03-9557-4786.

CAR MAINTENANCE: Carburettor

by Arthur Frith, Taree, NSW.

The purpose of a carburettor is to change fuel from a liquid state to a highly volatile vapour. Also, to meter (measure) fuel in proportion with air to supply a combustible mixture to the engine under all operating conditions. Some types of carburettors are:

- single barrel downdraught
- double barrel downdraught
- four barrel downdraught
- single side draught
- double side draught
- single barrel updraught

Some brands of carburettors are: SU, Carter, Stromberg, Solex, Weber, Holley. Some carburettors are simple in construction and others are complicated, however the main features of most carburettors are:

- An idle circuit to meter the fuel for the idle speed range.
- A main circuit to meter the fuel above the idle speed range.
- An accelerator pump to deliver a positive charge of fuel when the accelerator pedal is pressed down.
- A power valve which will supply a richer mixture required for maximum power on full throttle.

BASIC OPERATION

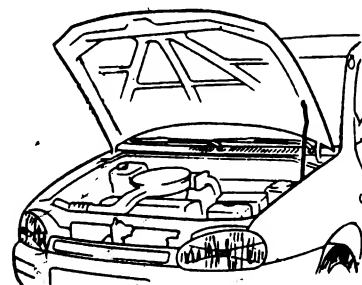
The first step in the carburettor operation is to break up the liquid into a fine mist, this is done in a similar manner to the common garden hose nozzle; by ad-

justing the nozzle opening a finer spray pattern will result. Another example is to turn a water tap on and put your finger slowly across the nozzle, as a result of this action you will notice that the more the nozzle is closed off the finer the water will spray out.

In relation to a carburettor, if a nozzle was fitted to a carburettor then an amount of fuel would come through the nozzle and be broken up into a mist. The smaller the hole in the nozzle, the finer the mist coming out.

In reference to the diagram in GR 110, fuel is drawn into the carburettor from the fuel tank by using a pump. The fuel enters the carburettor into a bowl and is kept at a set level in the bowl by the use of a float, which is pivoted on a pin, and when raised to the set level, pushed against a needle and seat (acting as a tap), closing off the fuel coming into the bowl. As the fuel is being consumed by the engine the float level drops and the needle moves off the seat allowing more fuel to enter into the bowl. When the set level is reached the fuel closes off preventing overfilling of the bowl – commonly known as flooding (refer fig 1).

So how does the fuel move up the nozzle? The best example of this action is drinking a glass of milk through a straw by placing your mouth over the end of the straw and drawing the milk



up. The reason the milk will travel through the straw is that the atmospheric pressure is present on the top of the milk in the glass (refer fig 2). When you suck through the straw with your mouth you are reducing the air pressure in the straw thus enabling the milk to travel through the straw.

For the fuel to travel through the nozzle tube, a lack (reduction) of atmospheric pressure must be created in the inlet manifold which the base of the carburettor is fitted to (refer to GR 106, pg 63, fig 2). This is done by the downward movement of the piston in the cylinder of the engine. When the inlet valve is open and the exhaust valve is completely closed (known as the induction stroke), fuel is caused to move from the fuel bowl up the nozzle tube and be broken up into a fine mist in the venturi. It mixes with air coming down the carburettor throat and entering into the inlet manifold through the inlet valve and into the cylinder, whereby the mixture of fuel and air is formed into a highly

Figure 1: Basic Carburettor Layout

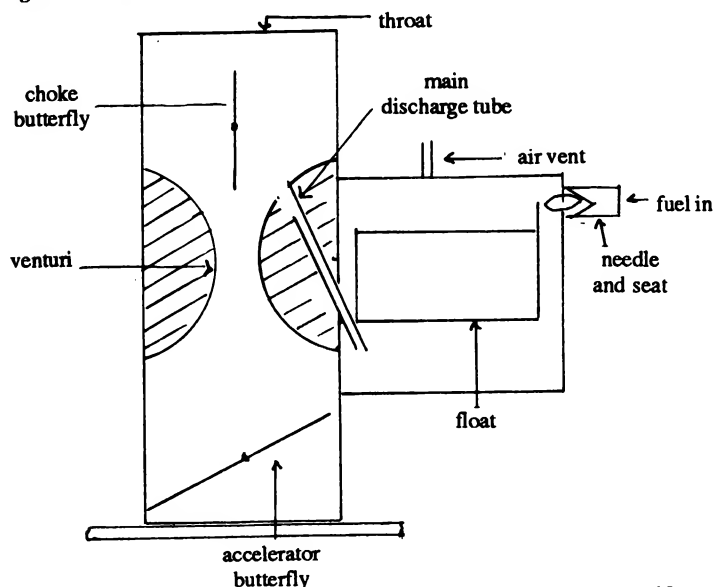
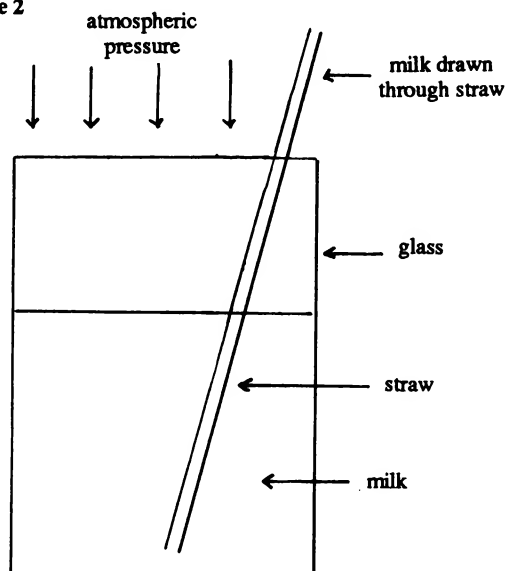


Figure 2



flammable state, ready to be ignited by the spark plug.

Problems that may occur with a carburettor do vary with make and design, however, some common examples are:

- Water and contamination in the fuel.
- Screws become loose or fall out.
- Gaskets deteriorate.
- Diaphragms crack.

To dismantle a carburettor, it is advisable to use a manufacturer's workshop manual before starting. Read the section thoroughly first. Make sure that the problem is in the carburettor before attempting to dismantle it.

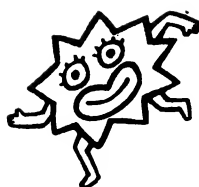
Problems that may affect the fuel and air mixture can also be caused by the air filter being blocked, vacuum leak in the inlet system, ignition timing incorrect.

Next article will be on trouble shooting.



VEGIE GARDEN TIP

Always plant again as soon as you have harvested your vegetable crop. To avoid leaving bare soil that can be damaged by wind and water and overrun with weeds, have your next crop's seeds or seedlings ready to plant. If you don't have them ready, plant radish seeds or lupins to pull up for mulch.



Do the Walk!



The Walk against Want turns 30 on Sunday, March 24, 1996. We believe it's no coincidence that Australia's oldest outdoor fundraising event celebrates its anniversary during the United Nations Year for the Eradication of Poverty. Right from the start, the funds it has raised have helped to fight poverty in India, where some of Community Aid Abroad's longest running and most successful programmes are based. Many of them support those hardest hit by poverty, children. They are enslaved as bonded labourers, exploited as sex workers, and are denied health, a home and an education. In India alone an estimated 100 million child labourers, some as young as three years old, miss out on a childhood.

This year's Walk Against Want will help fund organisations such as YUVA (Youth for Unity and Voluntary Action), a nongovernment organisation, support its campaign against child la-

bour. It works with the street kids of Bombay, on whose lives the internationally successful film 'Salaam Bombay' is based. Indeed, some of the child actors playing themselves in the movie came from YUVA, which means 'youth' in Hindi.

YUVA helps them organise themselves to fight for their rights, and provides food, emergency shelter and basic education. With the assistance of committed volunteers, many of them former street kids, it runs pavement schools and employment training for the children and helps them look after their own health.

In 1995, the Walk against Want raised just over one million dollars. The aim is to beat that in 1996. The funds will benefit programmes which fight the root causes of poverty. YUVA is one of them.

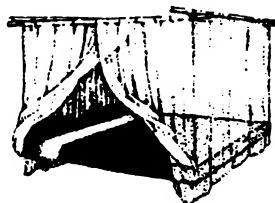
Anyone who wants to do the Walk can register through Community Aid Abroad's Walk Hotline on 1800 034 034 (free call).

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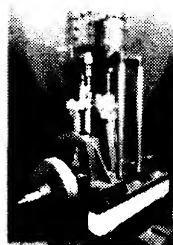
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DOWN HOME ON THE FARM by Megg Miller.

Begin as you intend to finish, said the fortune cookie I enjoyed with friends on one of the last days of 1995. An achievable homily to apply to the forthcoming year, we concurred, the sort of New Year resolution that just couldn't go wrong. My faith was shaken however on January 1 when a pair of guineas hurried a clutch of keets off the garden path and then the breakfast tour of the fowl yards brought forth no less than three broody hens with accompanying chicks. Chirping little ones seemed underfoot everywhere. If this was the practical expression of the New Years resolution it might not be long before the place was overrun with a plague of poultry! Fortunately the synchronised hatching was purely coincidental and no further breeding of this magnitude has occurred. A proud broody and family is a delightful addition to a farmyard but when there are grumpy hens and squarking chicks everywhere management becomes a chore rather than a pleasure.

Having guineas in the garden is not successful either if they're allowed to set and rear a family. They are too darned savage. Both parents plus any aunts or uncles that are part of the larger 'family' share the responsibility for nurturing, protecting the young with great gusto from real and imagined threats. The pair inhabiting the house garden have been joined by a male whose little hen died alongside her nest, a victim probably of heat stress. The three adults make a formidable team and I've suffered a couple of lightning quick strikes to my head and shoulders when I have unwittingly walked too close to them. Being familiar with the characteristics of these birds I usually just turn away to protect my face, but the attack is frightening and the sharp claws scratch and hurt. The little keets appear to be doing well, which is ironic because I'd decided against setting guinea eggs this year. The behaviour of this species to the young chickens and turkeys out on the range verges on cruel at times, and I'd decided I had enough of these vindictive bullies running around. It is early days yet for the little keets but I can well imagine them all growing to adulthood and assuming they in turn have the right

to rear their young ones in my garden jungle. Ugh!

I'm often asked to advise on poultry for insect control and in particular grasshopper eradication around the vegie patch. Whilst young Muscovies and turkeys consume vast numbers of these pests, once they reach maturity neither species can be enticed to spend long hours darting around after food in flight. Their fast growth as youngsters is associated with a high protein-energy intake and the resultant gnawing hunger plus the energy and curiosity of the young combines to make them successful for insect control. It also leaves you with the problem of what to do with them once they reach maturity.

Guineas, by contrast, are less effective when young as they are not as adventurous as the other species mentioned, especially if raised under brooder lights away from maternal guidance. They are disinclined to wander far and very nervous and fearful. As adults though they come into their own and nothing challenges their expertise as constant and effective insect eaters. The friends I enjoyed the fortune cookies with keep a small flock of these birds wandering around their open garden area and boast of their effectiveness. They had reason to pen the flock up for a

period and noticed during this time a sudden proliferation of biting and chewing insects. While it hadn't been apparent the flock were keeping these down they obviously devoured a mass of insects as they wandered around. Fowls will also chase and eat grasshoppers and the like but they are disastrous in the vegie patch and quickly tire of this monotonous diet. Guineas remain steadfast insect eaters and like nothing more than to be able to wander at will picking bugs off leaves and bushes, chasing moths and grasshoppers and pulling the seeds from dried grasses.

They probably sound wonderful birds – and they are in some respects. They are incredibly hardy as a rule, independent, able to roost at the tops of trees in all weathers, and can find most of the food they need. But they are also wily and difficult to catch, noisy with a cry reminiscent of a chainsaw, and egg production is low and seasonal. If grasshoppers are a problem guineas are the bird of choice, provided near neighbours are not going to be bothered by their penetrating call. If the vegie patch is close to the house, forget about mixed couples and obtain males only. They won't be wanting time off for paternity leave, they won't be setting in bushes and at risk from fox attack and they will have



Brownie, a long-legged Malay, one of the pullets whose brood hatched on New Years Day.

no reason to express the aggressive and proprietorial side of their nature.

One resident here that displays a complete lack of malice and aggression is piggy. She lets the chickens scratch around in her leafy bed and the feral fowls pick up any crumbs that escaped her attention. In fact nothing wakes piggy from the land of nod except the sound of the farm bike or squeak of the handle of her food bowl. The farm bike of course pulls the feed-out trailer, and piggy has come to associate the hum of the engine with a delivery of tasty tucker. The first few weeks here she industriously turned over all the soil in her yard, digging up the tap roots from the peppercorn tree alongside. Now she's content to sleep in her shed on a deep bed of eucalyptus leaves or snooze in the filtered sun under the tree branches. I'd like to take the credit for piggy's contentment, but as I mentioned last issue her breed, the Large Black, are renown for their docility and co-operative spirits. I'm sure if more smallholders knew about them they would be kept in preference to the mixed breed whites that abound.

Piggy's presence has reduced the disposal problem of old eggs and this in turn has reduced the fly population. Naturally she gets the old bread and stale cake from the kitchen, and over the holiday period a touch of decadence per the Chrissie leftovers. Imagine the picturesque face of a pig, munching happily on a large piece of exotic cake, the excess icing sugar from the top dusted over her grimy snout. As her normal diet is very mundane it's not surprising she savoured this tasty delicacy.

Although this summer has been a cool one the evenings are ideal for relaxing gardening. Hot nights mean more time spent watering and a greater risk of snake bite. Half an hour of weeding or mulching isn't hard to fit in after poultry feeding when the days are long, but for the rest of the year time spent in the garden is a luxury. It would be fair to assume I'm reaping the rewards for this extra effort but no, the night raiders or daylight destroyers continue their destructive efforts. Possums? Sulphur crested cockatoos? Rabbits? Who knows, they evade detection and cause just enough trouble to make you angry but not enough to give up gardening. For months I'd nurtured a pot of cherry tomatoes on the verandah, and repeatedly some critter ate or broke off leaves and then consumed all the green toma-

atoes when about half-grown. It also tracked down the tomato bushes in the garden and decimated them until the rampant summer growth out-bushed them. The fruit on the plants now are well concealed, so maybe I'll get to enjoy the labours of my efforts yet. Sometimes when I wander around the garden during the middle of the day I see my friend the tiger snake, but as we usually keep our distance no harm has befallen either of us. Since the family of guineas have been so active even he seems to have disappeared – perhaps it is true that their noise and invasive behaviour keeps snakes away.

A curious snake repellent has come from some lovely locals of Mediterranean descent. Gerry and Lucy divide their time between a suburban house and extensive vegie garden and small country property and orchard, and I enjoy catching up with them on their visits. In the old country, they repelled snakes by burning a little rubber, the smoke apparently driving the snakes away, a practice Lucy's Muma could vouch for. I haven't tried it yet and clearly care would need to be taken in rural areas on fire restriction days, but it will be feasible to try this in a shallow metal dish or hearth shovel. It is fascinating to learn of the mores of other cultures, and especially from people with the smallholder background. Muma kept turkeys back in Sicily, and the family always had a pig and poultry. The farm fresh eggs Lucy gets from me for their extended family make wonderful pasta, far better than that made with commercial eggs I'm told. I enjoyed apricots straight from her orchard in the new year, and they tasted sweeter and more flavoursome than any I've purchased from shops or fruit stalls. You can't beat homegrown fare, and whether producing it involves lots of wire mesh arks to minimise the destruction wrought by night raiders or lightweight nets and flappy plastic begs like Lucy and Gerry use to frighten off the cockatoos, the taste is worth the effort.

'When are you going to bring down some eggs?', the sophisticated Sunshine often enquires. 'And what about some tofu burgers.' 'How do you find time to make muffins and biccies? Homemade food is a real luxury.' Visitors say as they tuck into wholesome wholemeal fare. The way to all our hearts is via our bellies, this is not specific for men alone. I'm sure the writer of this old adage meant we feel calmer and happier and

PENPALS

Hi, my name is Kate Heathcote. I am nine years old and I would like to write to girls 8-11 years old. I like stamp collecting, I have two dogs and I like reading mystery, adventure and ghost stories.

Kate, C/- PO Box 242, EUROA 3666.

Hi! My name is Bianca and I am 13 years old. I have a variety of hobbies and love writing letters. I would like a penpal between the ages of 11 and 14, male or female.

Bianca, C/- PO Box 242, EUROA 3666.

My name is Sonya, aged mid 40s, my interests are many, including folk and folk/country music, gardening, reading, travel, herbs, meeting people and lots more. I would love to find some people to exchange e-mail with. My e-mail address is:

sbeneke@ren.netwlt.net.au

Hi, my name is Ruth. I love reading, writing, maths and horseriding. I am eight years old. I would like a penpal from 8-12 years old, male or female. I will answer all letters.

Ruth, C/- PO Box 242, EUROA 3666.

Hi, my name is Rebekah. I am eleven years old. I would like a penpal, female or male, any age. I like horses, writing letters, cats, animals and reading. All letters answered.

Rebekah,

C/- PO Box 242, EUROA 3666.

Hi, I am Kate and I am 10 years old. I would like a female penpal aged 10-12. My interests are music, soccer, reading and cooking.

Kate Greenshields,

C/- PO Box 242, EUROA 3666.

Hi! My name is Diana Brigg and I am a 13 year old female looking for some penpals. I like reading, riding (horses), gymnastics and writing letters of course. I will answer all letters and hope to hear from you soon.

Diana Brigg,

C/- PO Box 242, EUROA 3666.

Hi, I'm Rosemary and I'm 14 and live in Tasmania. I like animals, swimming, hockey and a lot more. I am looking for penfriends from all over the world, of any age or sex, so scribble me a letter and post it quick!

Rosemary,

C/- PO Box 242, EUROA 3666.



more loving after enjoying good food. Unless you have loads and loads of money to spend on exclusive restaurants, the best food is that you've grown and produced yourself. As I've started the year talking about the enjoyable pastime of eating, I'm looking forward to not just finishing with a full plate but sampling a vast array of edibles in the months between.

'GRASS ROOTS' AWARDS

We know our readers are a special group of people, their achievements are many and their talents diverse. They usually don't seek notoriety, but are content to quietly lead their lives in accordance with their own values and in pursuit of goals important to themselves. In recognition of these quiet achievers we are initiating the Annual *Grass Roots* Awards and calling for nominations in the following categories:

- **Lifestyle** – a person, family or group whose lifestyle most closely reflects *Grass Roots* self-sufficiency.
- **Innovation** – a person who has invented or produced something which aids or advances a self-sufficient lifestyle.
- **Good Samaritan** – a person who you know goes out of their way to help others in a variety of ways. The Feedback pages contain many examples.
- **Community Service** – a person active in the community in the promotion of self-sufficiency and environmental care.

The prize for each category is a Going Solar gift voucher to the value of \$200. Nominations will be published in each issue of *Grass Roots*. Voting details will be provided later in the year and the awards will be announced in the Dec '96 - Jan '97 issue.

Nomination Form

(cut or copy)

Conditions

Nominees must be persons you have read about in, or contacted through, *Grass Roots* magazine. You may nominate one person per category, per issue, but it is not necessary to nominate a person in each category. Employees of Night Owl Publishers, and their families, are not eligible. Include your own name, address and phone number and that of any person(s) you are nominating.

I (name address & ph).....

wish to nominate the following person(s) for the Annual *Grass Roots* Awards.

Include name and all known contact details, and a brief reason for each of your nominees.

Lifestyle.....

Good Samaritan.....

Innovation.....

Community Service.....

Send to: 'GR Awards', PO Box 242, EUROA 3666.

POETRY

MOUNTAIN BIRDS

*A forum of cuckoo shrieks
debates in tree pews, crosses The House,
moves on to the next agenda item,
while I wait for the strident joy
of Gang Gang cockatoos.*

*A choir of currawongs tunes up,
orchestrates in high fog, seeking absolution
for thefts committed at lower levels,
while I wait for the clashing colour
of Gang Gang cockatoos.*

*A screech of black cockatoos
bids for pine cone seeds, rejects the price
then samples the next stall's fruit,
while I wait in vain for the coming
of Gang Gang cockatoos.*

Iris Paridaens.

MY VALLEY

*Let me take you to my haven of
jungle land, steeped in rich brown
earth and ripe grass sprinkled with
heady blossoms quivering to the dew.*

*Let me show you between sheets of
tangled lilies on this water edged in
sunlight, the rippled grace of dragonflies
their rainbow reflection arched above.*

*Let me take you down this shadowy path
capped in blue mist to green depths of
spinifex and ferns, that glimpse the sun's
yellow light linking through the boughs.*

*Let me show you this crowded landscape
freckled with tiny scurrying insects, where
filmy hues spiral on the breeze as butterflies
pause to unfold woven wings of silk.*

Let me take you to my valley.

Wendy Hayes.

TOAD IN YOUR HOLE.

*Toad in your hole
at the bottom of my garden
I see you
I dig for coming spring
toad in your hole
mosquitoes that bite me
snap them away
you are safe
under rotting log
that I'll not burn
till next
wintime wind
toad in your hole
at the bottom on my garden
bloat with life
watch me
watch the big black crow
he comes and will take you
instead of my fruit.*

John Miles.

SAND BALLS

*Crabs are like people
They dig up the earth
wielding a power
exalting their worth.
The size of the crab is the size of the holes
and the size of the balls of sand he rolls.*

Shirley Davidson.

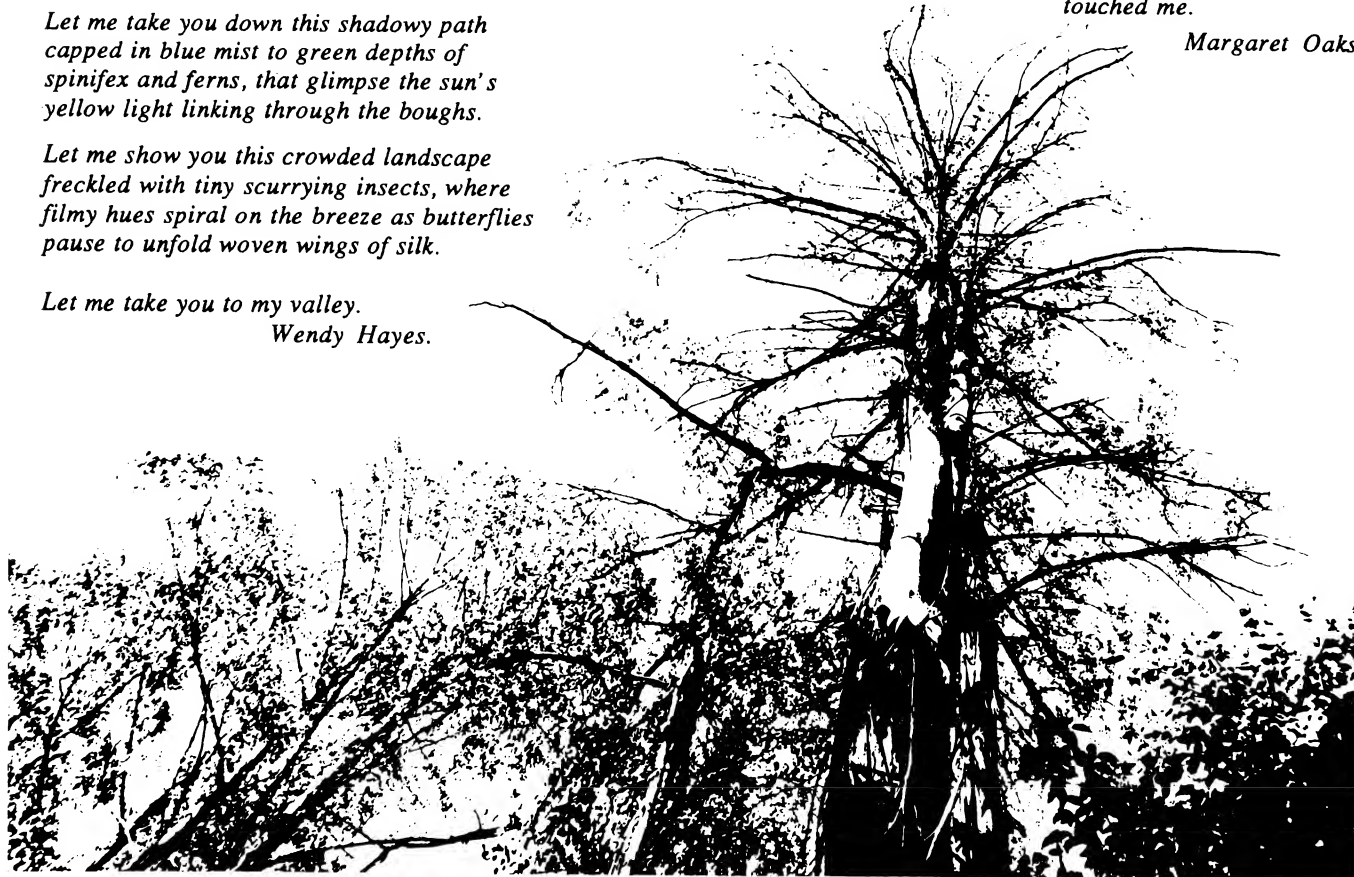
TOUCHING

*The earth embraced seeds
and touched the roots
of trees.
The soil touched the soles
of the feet
of burrowing animals.
The two eggs
of a platypus
touched the grass
at the bottom
of her burrow.*

*A wombat touched
the hollow log
she slept in.
A possum peeped out
of a hollow
in a tree.
His paws touched
the apple he nibbled.*

*A joey touched
his mother's pouch.
The mother's lips
touched the cool water
in a stream.
The reflection of a swan
seemed to touch
a pond.
And the wonders
in nature
touched me.*

Margaret Oaks.



Recent Releases

On this page we present information about newly published books that we feel will interest readers, with details of prices and publishers. We no longer distribute books for other publishers so if you're interested in buying any of the books described here, please order them through your nearest bookstore.

★ FEATURE TITLE ★

THE ULTIMATE BOOK OF FLOWERS FOR AUSTRALIAN GARDENERS

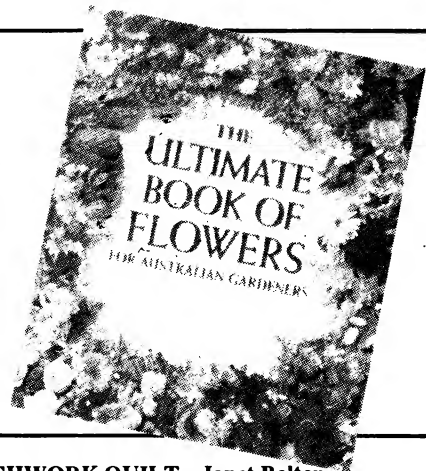
– Roger Mann.

Accompanied by beautiful colour photos and describing over 1100 of the most delightful and interesting flowers of the world, this book is a valuable reference source for any flower lover or gardener.

Each flower has a description which tells the history and botany, cultivation notes and growing advice. It includes plants from areas as diverse as the tropics, the deserts, the mountains, the seashore and the cold forests.

There are sections for flowers as food, as medicines, and even a 'chamber of horrors', which includes poisonous and carnivorous plants. A handy twenty-two page reference table is included, and common as well as botanical names are used in the index for easy access. A very useful, and inspiring book.

H/b, 464 pp, Random House. Ph: 03-9729-5511. Fax: 03-9720-3490. RRP \$49.95.



RURAL SAFETY: CHEMICALS & DANGEROUS SUBSTANCES

– Andrew L. Brown, Brian Lawler & David Smith.

This book examines the whole range of farm chemical hazards and explains how to minimise the risks through straightforward, practical strategies. These involve safe storage, protective clothing, safe application, mixing and disposal. The implications of not observing safety guidelines are spelled out clearly and are frightening enough to perhaps encourage farmers to seek natural alternatives to dangerous chemicals or, at the very least, to review their present strategies.

P/b, 120 pp, Inkata Press, Butterworth-Heinemann, PO Box 146, Port Melbourne 3207. Ph: 03-9245-7111. Fax: 03-9245-7395. RRP \$29.95.

HATS MADE EASY – Lyn Waring.

Hats are making a comeback and this season you will be able to make your own, with the help of this book. With step-by-step instructions and descriptive diagrams, Lyn provides the details to make all manner of hats – brimmed, berets, peaked, pieced and all kinds of modifications that are limited only by your imagination. Instructions include clear diagrams, colour photos and details on how to alter pattern pieces to increase or decrease the size.

P/b, 119pp, Sally Milner. Ph: 02-555-7899. Fax: 02-555-1403. RRP \$24.95.

LANDSCAPING WITH STONE – Derek Moule.

The author has worked as a landscape gardener since the 1960s with a particular skill and interest in working with stone. He has been involved in training people entering the landscape industry, and here features work by his students. In this book he explains the traditional building techniques of dry stone walling, steps and paving, rock gardens and waterfalls. The section on construction of pools and waterfalls is particularly useful in its detail, diagrams and photos. The projects show features that look natural, while the techniques involved are explained clearly.

P/b, 48 pp, Moule Landscaping Co, PO Box 189, Blackwood 5051. Ph: 08-388-2175. RRP \$21.45, NZ \$21.95 (incl p&p).

WORKING DOGS: Training For Sheep & Cattle – Colin Seis.

The author of this book has been breeding and training Kelpies for many years and here shares his knowledge and skills with insight, humour and compassion. The areas covered include the history and standards of breeds, selecting, training and basic obedience for a pup, introduction to and working with sheep and cattle, behavioural problems and caring for your dog. Throughout, he emphasises kind and patient handling to refine the actions that are instinctive in the well bred and intelligent working dog.

P/b, 136 pp, Inkata Press, Butterworth-Heinemann. Ph: 03-9245-7111. RRP \$29.95

MRS NOAH'S PATCHWORK QUILT – Janet Bolton.

As Mrs Noah tells the story of how she made her quilt, Mr Noah gives his account of the voyage, and piece by piece the patchwork quilt takes shape. With the aid of the pictures and the fabric pieces included with the book, readers are able to construct their own version of Mrs Noah's quilt. A charming idea for next Christmas.

H/b, 23 pp, Sally Milner. Ph: 02-555-7899. RRP \$35.

THE PUPPETRY HANDBOOK – Anita Sinclair.

Puppetry is essentially a communicating medium. This book explores ways in which puppets can be brought to life, with over 400 technical drawings and detailed instructions. With sections covering scripts, sets and performance venues, it provides an excellent springboard from which to launch puppetry into schools, community groups and festivals. An excellent reference book for practical use.

P/b, 208 pp, Richard Lee Publishing, PO Box 828, Castlemaine 3450. Ph: 054-705-523. Fax: 054-705-849. RRP \$33, inc p&p.

INSTANT CALM – Paul Wilson.

Unashamedly, this is a book of quick-fix solutions to the symptoms of tension and anxiety. It provides fast relief, with minimal regard for long-term cures. Over a hundred calming techniques are offered based on meditation, accupressure, self-hypnosis, psychotherapy, aromatherapy, exercise and diet. There is also a section on longer term calm solutions, to enable you to tackle the healing process, once the initial tension has been dealt with.

P/b, 322 pp, Penguin Books. Ph: 03-9871-2400. RRP \$14.95.

WEIGHT WATCHERS QUICK & EASY COOKBOOK

Weight Watchers knows how difficult it is to stay on a weight-loss programme that limits you to unattractive, unappetising meals. With over 80 recipes that are tasty, nutritionally sound and take just minutes to prepare, this book assists in making diet meals more interesting. Each recipe gives a fat and dietary fibre count and a selection information statement which tells how it fits the food plan.

H/b, 128 pp, Compass Publishing, distributed by Penguin Books. Ph: 03-9871-2400. RRP \$22.95.

FARMWATERSUPPLIES. Planning & Installation – Neil Southorn.

The viability of farm enterprises depends on the supply of water, so farmers need to plan the development of their water resources. They need to be installed correctly and managed well, for both good times and drought. This book provides practical information for those relying on permanent streams, dams, underground water and town water. Other topics covered are: contamination and treatment, pumps, planning and building dams, designing pipelines and calculating requirements.

P/b, 144 pp, Inkata Press. Ph: 03-9245-7111. RRP \$29.95.

GRASSIFIEDS

HOW TO ADVERTISE

Use the form provided below, or a separate sheet of paper, to print your advertisement clearly, not in block capitals, including correct punctuation. Remember to include an address or phone number in your advertisement. Count the number of words and multiply by 60 cents per word (phone number counted as one word) to work out the total cost of your advertisement. Send your advertisement and payment to *Grass Roots*, PO Box 242, Euroa 3666, before the deadline and we'll include your advertisement in the next issue of *Grass Roots*. **Deadline for GR 114 is 29th February, 1996.**

Sender's Name VIRGINIA CURR For issue no/s 114
 Address 11432 OXFORD ST, Classification CONTACTS
Paddington Postcode 2021 Cost

Looking FOR MR Good ~~KARMA~~ Cost for advertisements is 60c per word.

hard back ex traveller, female piscean early 30s living Sydney's eastern suburbs looking for a good hearted friend male, into travel, gardening, books, other cultures, movies, human rights - having a good ~~time~~ laugh. Social drinker & non tobacco smoker, love a dance but totally non scene. If your male, non chauvinistic, alternative, who's travelled

PROPERTY FOR SALE

NEW SOUTH WALES

NORTHERN NSW, peaceful, quiet 118 ac, 1 1/2 km crk, fertile flats all cleared. Lovely home. Sheds, yards, kikuyu grass. Run 25 breeders. Electricity, ph, school bus. Reduced \$130,000 ONO. Ph: 066-663-540.

CLARENCE RIVER FRONTAGE, 4x100 ac blocks, new fencing, mostly cleared. Grow olives, fish farming, elec, ph, handy. School bus. Reduced \$65,000 ONO. Ph: 066-663-540.

TWEED VALLEY: 51 ac of superb views located in prestige area, 15 mins from Coolangatta airport. Power to the block, Springs, crks, lots of river stone in valleys, hardwood forest, etc. We're selling our super-annuation policy for only \$195,000. Call/fax Michael or Lizzie on 066-766-007.

BURRAGATE - NSW, 200 ac nth mountain views. Improved pasture, dams and stands of trees. Rural residence, machinery shed, power, ph, water tanks and sewerage. Some irrigation. School bus and daily mail service. Coast 40 mins, 90 mins to snow. \$190,000. Ph: 064-967-009.

BURRAGATE - NSW, 12 ac river frontage, power & ph avail. Merimbula 40 mins. School bus & daily mail service. Picturesque. \$30,000. Ph: 064-932-110.

NYMBOIDA, architect designed 3 b/r timber yurt. Unusual features incl exposed timber, skylit, domed ceiling. Western red cedar doors, windows, brush box floors, s/c/stove, huge dams, irrigated vegie garden, 10,000 gal tanks, ph, stand-alone power, school buses, 25 ac f/hold. Thriving community. All-weather access. \$138,000. Ph: 066-494-273.

NYMBOIDA, open plan timber 2 b/r home. Stand-alone power, ph, s/c/stove, solar HWS, spring-fed dams, crks, 5000 gal tanks. Half share picturesque, organic 75 ac. Abundant wildlife, good community, s/bus at gate. \$89,000. Ph: 066-494-273.

NYMBOIDA, NORTH COAST, 40 ac f/hold, 37 sq Nu-Steel home, 4 b/r (3 BIR), ensuite, WIR, lge modern kitchen/dining room, lge lounge room, 2 wc, down lights t/out, 8' verandah four sides. Two x 5000 gal tanks, perm crk, 2 natural springs, elec, ph, mail, school bus, plenty of wildlife. \$230,000 ONO. Ph: 066-494-276.

FAR SOUTH COAST, 95 ac, nth facing, river frontage, crk bndry. Three b/r home, lge garage workshop, bungalow, out-buildings. Established f/trees, vegie garden, great views Coolangabra Nat Pk. Bargain \$125,000. Ph: 064-942-294.

INTOWN AT TEMORA, 2 b/r, 12 ac, 3 dams, windmill, orchard, shelters, water tank. \$130,000. Ph: 069-774-066, 02-832-2777.

BUSH RETREAT - NAMBUCCA VALLEY, mid nth coast, 27 1/2 ac, timbered, perm crk, 45 mins to main town. \$48,000. Ph: 044-651-505.

ELANDS/NEAR TAREE, r/forest/mountain property. Ph: 065-505-012.

BUSH RETREAT, 40 ac, slightly timbered, plenty water, nice views, furn bus & shed, close to river. \$38,000 ONO. Goulburn area. Write to: R & P Schoots, 4 Colling Ave, WERRINGTON 2760.

NYMBOIDA, NORTHERN NSW, 2 dwellings on 100 ac. Main dwelling 3 b/r, 2 storey hexagon features natural woods, bushrock, verandahs & balcony, beautiful views. Second dwelling is self-cont 1 b/r cottage. Property is

80% wooded, has dam, picturesque crk, abundant organic vegie patch, sheds, paddocks, school bus to gate. Wildlife is prolific. Fully estab property within idyllic setting. Must sell. \$145,000. Ph: 066-845-206 for details and photos.

NORTHERN NSW, 38 hectares, timber and pasture, some r/forest, perm crk and dams. On main rd, school 2 km, 35 mins Taree, large alternative community. Cleared homesite approved for building. Temporary house with power and water. \$150,000. Ph: 065-505-029 or 002-494-535.

MUDGEE DISTRICT, 100 ac, mostly cleared. Peaceful bushland setting surrounded by nat pk. Suitable grapes, self-suff. Split log home, combustion stove, solar power, diesel generator, ph. Three water tanks, 60' machinery shed, spring-fed dam. Potential unlimited. \$79,500 or \$89,500 with tractor and implements. Satellite TV optional. Ph: 063-734-218 AH.

ADELONG, 1 hr Wagga, 2 hrs Canberra, C1870s house on 4 ac (easily subdivided). \$139,000 ONO. Ideal artist/craftsperson, or as hobby farm with potential for self-suff and being part of village community. Ph: 069-462-429 for details, photo.

HUNTER VALLEY, NSW, beautiful 5 ac block at Main Creek near Dungog. Permanent crk, 2 sheds and 100 yr old 20m brick chimney. Power and ph. Ideal for homesite, weekend, art gallery/workshop, cafe or holiday cabins. Adjoining wildlife reserve. A very special spot. \$85,000. Ph: 049-922-010 or 498-323.

EDEN, 25 km west, 2 blocks approx 16 ac each, partly cleared, lovely location in valley. North-east aspect, power avail, 5 mins walk to shop/PO and school. \$35,000 ea, ONO. Towamba. Ph: 064-967-136.

GRASSIFIEDS

PROPERTY FOR SALE NEW SOUTH WALES

STUART TOWN, 25 fenced ac with crk, bore and livable 2 roomed dwelling. Cement slab and some walls for larger house already erected. Tank water and elec. Ph: 063-625-999 BH.

SOUTH COAST HAVEN, Gerringong (near Kiama), charming hand-crafted natural timber house, 2 storey, 4-5 b/r, lge living area and spacious verandahs. Close to beach, beautiful views. Fruit & nut trees. Biocycle. Must sell. Only \$199,000. Ph: 042-265-659.

DRAKE VILLAGE, 143 bushy ac, northern NSW, adj to Girard State Forest and only 3 hrs to Brisbane. Good dam and plenty of excel timber on this partially fenced block. \$45,000 ONO. Ph: 019-341-369.

MID NORTH COAST, 119 ac, Upper Buccrabendinni via Bowraville, 37 km west of Nambucca Heads. Creek bndry with perm water, well timbered, ridges rising to state forest rear bndry. Power & ph avail. Reduced to \$69,000. Ph: 065-688-214.

COONABARABRAN, 110 ha with perm spring, several dams + lge fish dam. Stone house just started, temporary shelter with solar power. Stone fruit & citrus orchards. Tractor, Landrover, many more extras. Must sell due to ill health. \$100,000. Ph: 068-422-769.

BUNNALOO TOWNSHIP, 3 b/r brick veneer home on double block with rural outlook, excel home for family or retirement. Three doors from school. Sporting complex & oval: tennis, football, badminton etc, 2 blocks away. Shops, golf club, bowling club etc 25 km. Fifty km to cities & pokies etc. Forest & Murray River, 10 km. Home: lounge-dinette, kitchen, 3 b/r with BIR. Tiled bathroom, toilet, laundry. New floor coverings & carpet. Excellent wood-heater. Double roller door garage. Established garden. \$75,000. Ph: 054-822-307 AH, 054-822-041 BH.

WELLINGTON, PICTURESQUE 27 ha (67 ac) farm, 3 titles, 3 b/r comfortable home, built-ins, lge kitchen, office-sewing room, s/c/stove, ducted a/c, abundant water, good sheds & fences, cattle & sheep yards, 31 cattle, 35 f/trees, tractor, implements, tar rd, school bus. \$165,000. Ph: 068-463-486.

TAHMOOR, SOUTH OF PICTON, edge of Southern Highlands, 3 ac (1 1/4 ha), consisting of older-style home with lightly timbered paddocks either side. Fruit trees, vegie gardens & poultry. An interest in permaculture, organic gardening or horticulture would be an advantage. Improved pasture, town water, short drive to shops & railway station. Future development potential. Suitable for a couple. \$195,000. Ph: 046-819-552.

PATERSON AREA, Paterson River frontage, 48 private ac. River flat to undulating, many trees, beautiful crk through property, good fencing. Comfortable 4 b/r home, all amenities. Absolute peace. \$340,000. Ph: 049-388-240.

BEAUTIFUL HISTORIC VILLAGE of Majors Creek, 1 1/4 hrs Canberra, 1 hr Batemans Bay, Leafy 1 ac block on edge of village, partly bordered by state forest. Just completed 11 sq

**DEADLINES: GR 114 - FEB 29TH
GR 115 - APRIL 30TH**

rendered besser block house with solar and LP gas. Cathedral ceilings, wood heater. Very attractive n/th outlook. Deep rich topsoil. Would suit berry patch or sml orchard. Creek water and 50,000 lt u/ground tank. Priced for quick sale at \$89,000. Ph: owner, 048-461-013.

TUMBARUMBA, BATLOW AREA, 157 ac, pisé house (rammed earth), 3 b/r, lounge-dining room, off peak HW, carpeted, all round verandah, ex-dairy building. Bore water, basalt soil, high rainfall, 70 ac native timber. Tumbarumba Crk frontage, trout fishing. Bus at gate, beautiful country, could subdivide, private sale. \$125,000 ONO. Ph: 069-462-482, AH 069-488-638.

TUMBARUMBA, BATLOW, 5 ac, f/hold, cream brick veneer house, 3 b/r, BIR, open plan lounge/dining & kitchen, gas cooking, multi-c/port. Unlimited water, nice irrigated garden and rockery, prosperous beautiful area, close town, bus at door, private sale. \$120,000. ONO. Ph: 069-462-482, AH 069-488-638.

OLD COLONIAL STYLE (1910), 4 b/r home. Unpainted baltic and cedar interior, high ceilings. Recent renovations; restumping, 4 cypress rooms incl loft. Two ac, 11,000 gal r/water, 5000 gal pump from river. Pristine views of Coolangubra and Towamba Valley. Slow combust cook & HW, septic. Village surrounds, 15 mins from store, cafe, school, 45 mins from ocean. Primary & senior bus service at front gate. Extensive orchard & gardens. \$145,000. Ph: 064-967-165.

ONE HUNDRED AND TWENTY ACRES OF CREEKFRONT, native forest near Eden, some thick forest, some open, long creekfront, good housesites, sml seasonal crk runs through middle of the block, would make it easy for friends/rels to share. Good rainfall, good soil, plenty of wildlife. Very secluded block. \$79,500 ONO. Ph: 047-824-856.

LOOKING FOR PARADISE? Offering 35 magical chemical-free ac, 23 km from Lismore. Established f/trees, perm crk, enormous swimming hole, spring-fed dam, timber home/verandahs, garage, dairy. Asking \$210,000. Share possible. Ph: 066-886-259.

GLEN DAVIS VILLAGE, 1/2 ac bush block, all services avail. Next Wollemi Nat Pk, beautiful scenery. \$10,500. Ph: 02-623-5503.

TAMWORTH AREA, self-contained bushland valley, end of rd, offering complete privacy, 161 ha (400 ac) in 2 lots with near-new modern 2 b/r home with lge serviced on-site c/van set in lge beautiful garden. Plenty of water, crk, bore, tanks. Abundant wildlife, bird lovers paradise. At present used for breeding mini-horses. A glorious place to live. \$140,000. Generous finance avail to approved buyer or will sell 100 ac with house etc for less. Ph: 067-695-503 nights.

Please print your ad clearly
so we can do likewise

QUEENSLAND

GIN-GIN, QUEENSLAND, 25 ac, lightly timbered, dam, power, ph, school bus. Urgent sale. \$25,000 ONO. Ph: 070-976-252.

BLACKBUTT, 5 ac, fully fenced, 3 mins out of Blackbutt. Lightly treed, partially restored old Q'lander, 2 b/r & 2 s/o, HWS, 2 x 5000 gal tanks, new country kitchen, huge lounge room & dining area, laundry. \$89,950 ONO. Ph: sole agent, Anne Marie, 071-630-194. Fax: 071-630-355. Mobile ph: 018-716-314.

STANTHORPE AREA, 7 ac on quiet rd, 17 km south. Virgin bushland and granite rocks surround level homesite. Two rd frontage with views n/th. Power connected. \$27,000. Ph: 076-834-233.

SELL NOW! RIGHT NOW! Just over 50 ac for \$20,000, in the Wondai area of Qld. Mostly fenced, 1/3 selectively cleared, lots of tall ironbarks, crk line, dam water always high, lockup c/van & shed. A genuine private honest sale. No offers below \$20,000. Ph: Scott or Kim, 079-225-245.

BUNYA MOUNTAINS FOOTHILLS, 17 ac, perm crk, underground water, power & phone at front, 10 min stroll downstream to falls and lge swimming hole. \$42,000. Ph: 076-621-661.

MARYBOROUGH - HERVEY BAY, 5 1/2 ac, Bruce Hwy, fully fenced, worker's cottage, lge shed, dam, some f/trees, power, ph avail. \$85,000. Ph: 071-223-210.

FORTY ACRES OF TRANQUILLITY. Enjoy peace and quiet with nature at its best. Do your own thing without being disturbed. New 40x20x10 Colorbond shed. Many extras. Kingaroy 35 km. \$50,000. Ph: 071-690-036 evenings.

ATHERTON TABLELANDS, executive home on fertile 5 ac at below replacement cost, 4 b/r, 3 bathrooms + office and self-cont guest room. Floor area 480m² and 90m² of breezy verandahs. Privacy guaranteed, this home is 5 mins to all amens in Atherton. Prepared to combine profitable part-time opal and jewelry business into an arrangement. Asking \$210,000. For photos and more info call 041-481-8200.

AGNES WATER, 40 ac, high side of avocado crescent, ex-farmland, undeveloped, grass, trees etc. \$35,000. (\$4000 below purchase price 6 yrs ago). Possible long-term lease of adjoining 40 ac block. Ph: 090-214-301, or write: W & J Boniface, 78 Hanbury St, KALGOORLIE, WA 6430.

LOWOOD, HIGHSET HOME, 3 1/2 ac, above frost/flood levels. Views across valley, 2 b/r, sleepout, 2 dams, 2 tanks. Native garden, herbs, vegies, natural bush. Part fenced - new. Good rds, commute Brisbane, Ipswich, Toowoomba. Shops/facilities 3 km. Walk to schools. \$93,000. Ph: 074-262-196.

CHILDERS, 62 ac, crk, bitumen frontage, 1 hr Fraser Island. \$32,000 ONO. Ph: 079-564-418.

LOWMEAD, FORTY ACRES, 50 km to Agnes Waters & 1770. Lightly timbered, level homesite, ph. \$27,000. Ph: 066-423-645.

GRASSIFIEDS

PROPERTY FOR SALE QUEENSLAND

YARRAMAN, SE Qld, 2 ac, 2 b/r house/lock-up, town water, dam, shed, elec etc. One hr coast. \$48,000, on say \$10,000 deposit, vendor terms. Ph: 065-532-785.

GOLD COAST HINTERLAND (foothills), 5 mins from main hwy, shopping village and new train line. Situated on lake and parkside. Large ranch style home with high cathedral ceilings, swimming pool, stables, and sep self-contained flat. \$375,000 - couldn't replace for twice that - Bargain. Photos avail. Ph: 075-5573-1384.

MOUNTAIN RETREAT, 80 mins to Brisbane, 40 mins nth Toowoomba, 3 b/r rigloo cottage on 37 ac. Includes lge shed - 15 x 7 1/2 x 3.6 m, solar powered with diesel generator 8 KVA backup, 200,000 gal dam, 48 inches average r/fall. Area ripped and cleared ready for f/trees. Includes associated pumping equip. Asking \$115,000. Ph: 074-241-201.

RAVENSBORNE RAINFOREST, 35 mins nth of Toowoomba, 40 ac, 5 ac homesite with great views, 800 m off main rd, power avail, quality land. \$86,000. Ph: 074-241-201.

WE MUST SELL our peaceful 11.7 ac 1 hr from Brisbane central, 1/2 hr from Ipswich. Bushy, waterholes, cabin, sheds, 2000 gal tank, ph, gas, fenced. Variety of frog/bird/koala life. Walk to school, shops. Swimming/boating on Brisbane River and Wivenhoe Dam within 10 mins drive. New business venture forces us to sell, \$60,000. Please call owner, 0411-324-509.

AMMAMOR CREEK, Gympie hinterland, 38 ac with r/forest and perm crk. High ceiling bungalow with solar power. Ideal retreat \$78,000. Ph: 07-3425-1619.

NOOSA HINTERLAND RETREAT, 19 ac. \$72,000. See details under communities section.

VICTORIA

FOUR HUNDRED ACRES of natural bush with 2 km frontage to the Gellibrand River. Lovely vistas across valley. Could be subdivided. Melbourne 190 km. Approved for conservation covenant. \$135,000. Ph: 052-433-740 AH, 052-441-922 BH.

90 MILE SURF BEACH. Be lulled to sleep by crushing waves! Located in picturesque wooded dell, Woodside Beach. This exceptional 4 b/r family home/holiday residence exudes charm & character. Unique 'free form' Tasmania pine kitchen, split level living. Combustion heating, bedrooms on upper level with BIRs. Shed 30 x 15'. Minutes stroll to patrolled unspoilt surf beach. \$110,000. Ph: S R Curry Real Estate, 251 Commercial Rd, YARRAM. Ph: 051-826-188.

PRETTY AS A PICTURE, Gippsland Sth, extremely picturesque 127 ac (51.39 ha) farmlet situated in rich, sheltered valley with perm willow lined crk, Woodside Nth. Classy 3 b/r colonial BV with deep verandahs from which to view this magnif valley property. Clean, fertilised pastures. Quality fencing & improvements. Enviaible 60 x 40' fully enclosed shed,

PLACING AN AD? See page 70 for details

machinery shed, excel steel stock yards. Suit self-suff venture, 1st farm or retreat. First to see will buy! \$295,900. Ph: S R Curry Real Estate, 251 Commercial Rd, YARRAM. Ph: 051-826-188.

SOUTH GIPPSLAND, 3 ac, SEC, town water. Beautiful view Wilsons Promontory, shallow inlet, hwy position, \$48,500. Ph: 03-9598-4324 BH, 03-9583-0995 AH.

SOUTH GIPPSLAND, 50 ac, 4 b/r house, BV - clinker, 37 sq, spa, sauna, 2 bathrooms, 5 yo, shedding, 7 paddocks, bore water, 1 km off hwy. Close Pt Albert, Pt Welshpool, Tarra Valley. Ideal stud, hobby farm or bed & breakfast. \$310,000 ONO. 03-9598-4324 BH, 03-9583-0995 AH.

GIPPSLAND AREA, private sale by owner, Tarra Valley, 2 storey Alpine chalet, 41 sq, 5 b/r, 2 bath and toilet, on 50 ac close to r/forest. Suitable as country retreat, bed & breakfast or hobby farm (deer, ostriches, stud farm). \$320,000. Inspection by appointment. Ph: 03-9364-5284, fax: 03-9364-5922, mobile: 015-563-395.

W-TREE, BUCHAN. Cosy mud brick and timber cottage. Set in wilderness garden, adj land for wildlife and state forest. Haven for birds. Charming retreat for artist, naturalist, horticulturist. Wood fires, solar lighting, gas fridge, outside compost-toilet. Established organic orchard, all on 5 ac, 99 year renewable lease and share in 575 ac property. \$52,000. Ph: 051-550-276.

EAST GIPPSLAND, Swifts Creek, 475 ac, mainly bush, crk frontage, 3 b/r mud brick house. Wonderful views. Abundant wildlife, state forest border. \$130,000 ONO. Ph: 03-9525-6590, 019-183-677.

SOUTH GIPPSLAND, farmlet at Toora North. Modern 2 b/r home (Hardiplank) on 6 ac, fronting onto Agnes River. Features incl power and ph. House in top condition t/out. Gas stove & wood heating. Property has f/trees, top pasture, good fencing, + hothouse, 2 x 7000 gal concrete water tanks, a licence to pump water out of the river. Property comes with 8 sheep and lambs, 2 Jersey house cows and calves. Priced at \$120,000 ONO. Enqs: 056-816-249.

HEYWOOD, SOUTH-WEST VICTORIA, 1 ac in town. Excellent soil, town water and sewerage on site. \$12,000 ONO. Ph: Iain, 066-822-621.

WEDDERBURN, TWENTY ACRES, Victoria, bush block, 20 x 20 Trust Tech garage, all permits. Two gas fridges, gas stove & wood stove, solar power, 4 berth c/van, 800 & 500 gal water tanks, ph connected, building permit, bbq area, views, timber & birdlife. \$26,000. Ph: owner, 054-943-092.

TASMANIA

PASSIVE SOLAR GREEN HOME, two storey mud brick & cedar on 6 1/2 ac. Near beach (east coast), f/trees, dam, lge workshop, excel

climate. \$105,000 ONO. Details ph: 003-725-346.

ENTIRE LIFESTYLE ST HELENS: (1) Overlooking bay, 2 lge BIR b/r + office in w/b home on 1012 m sq with second block of 1276 m sq giving back entrance, orchard, vegie garden, chook run, back shed, and lge garage with c/port. Quality furniture included. (2) Twelve ft clinker GRP dinghy with 4 hp Mercury on King trailer with Hookah dive compressor etc. (3) Thirty ft motor-sailer, 4 yo, 4 berth, 3 cyl Isuzu, self-furling genoa plus mooring. (4) Mazda 323 s/wagon. (5) Registered business, sole Tas distributor for 'De-Bug' diesel decontamination units. Total price \$196,500, will trade motor-home. Ph/fax: 003-761-580 Tas.

FOREST NEAR STANLEY/SMITHTON, 6.5 ac, 3 b/r, lge garage/workshop, 7000 gal concrete tank, bore, hothouse, 1 ac. Herbs, fruit, flowers, shrubs, 2 ac pastures and trees, 3 ac pasture, all organic. Shops 100 m. Make open garden scheme. \$85,000 ONO. Ph: 004-583-208 evenings.

SCAMANDER, EAST COAST, registered 3 b/r guesthouse & tearoom + sep unit. Double level block backing onto coastal reserve, 5 mins walk from miles of sandy beach. Organic vegie garden. For details and photo write: GPO Box 1652, HOBART 7001, or ring Margaret on 002-343-552 work hours.

TASMANIA, GUNNS PLAINS, urgent sale, 50 ac, 3/4 km river frontage, unlimited gravity water, 4 b/r, stone/timber house \$100,000. Ph: Rory, 047-587-762.

MEANDER, 25 km sth Deloraine. Bluestone/w/board, baltic pine interior, 3 b/r, family, lounge, modernised kitchen/dining, bathroom, lge laundry. Four ac pasture, fruit, nuts, berries. Rainwater tank & bore. Several outbuildings. \$89,500. Ph: Linda, 08-265-4650, or Chris, 06-247-5269.

ST MARYS, TASMANIA, say goodbye to that mortgage! Live an affordable lifestyle in friendly east coast town. Three b/rs, car accom, workshop, greenhouse, woodshed, storage shed, wood heater, town & tank water. Easy walk to shops, high school, library, hospital, golf course, hotel, sports club, 10 mins to fishing and beaches. \$38,000. Ph: 003-722-186. Furniture neg.

PIONEER, NORTH-EAST TASMANIA, cosy 2-3 b/r home on 2024 m² block (2 titles) in quiet country town, 25 mins from beaches. Town water and power. \$25,000. Ph: owners, 003-532-250.

WESTERN AUSTRALIA

FORMER TOWN MARKET GARDEN, 6475m² with crk frontage. \$17,500 ONO. Ph: 091-854-605.

FARMLET, 25 ac, all amenities, bush and pasture, good soil. \$46,500. Ph: 098-383-070. HOPETOUN WA.

**To avoid disappointment ensure
your ad meets our deadline**

GRASSIFIEDS

PROPERTY FOR SALE WESTERN AUSTRALIA

JARRAHDAL: OLD STYLE DWELLING, 1210 m² block situated picturesque hills village, SEC/water connected, ph access. Close school, shops, PO, public transport. National pk 150 metres. Well constructed poultry pens and intensive goat shed. Extensive organic gardens, raised vegie beds, numerous f/trees, vines. Gardened organically for past 13 years. No chemical sprays used. Block has supported family for past 10 yrs with vegies, fruit, meat, eggs and milk. \$50,000 open to neg. Ph: 09-526-2894.

WA, BENCUBBIN, 30 ac, 4 km from town, liveable dwelling, organic history, 3 hrs from fruit, scheme water, r/w/tank, pig shed & yards, chook pens, no SEC, work avail in area. \$20,000 ONO. Ph owner, 097-914-392, hardware 096-851-219.

SOUTH AUSTRALIA

VIEWS OVER HOG BAY JETTY, 1/2 ac block, shed, 2000 gal r/water tank, levelled house site, power, ph & mains water avail. Write to: Angus Guild, C/- PO, PENNESHAW, SA 5222.

SELF-SUFFICIENT, 3 b/r, hexagonal dome home, quiet, very secluded, next to nat pk, superb views in natural bush setting on 25 ac, 20 mins from Adelaide. Gas fridge, solar/wood/gas HW, gas/wood cooking, water, septic, 3 sheds, solar/wind/diesel power, organic garden, f/trees, chook sheds. Heritage agreement (no rates). \$180,000. Ph: 08-390-3636, or 014-958-909.

RURAL LIVING on elevated 2 ac to 13 ac blocks overlooking Murray River near Walker Flat in SA. ETSA and river water connected. Simple land management agreement to protect your investment. \$15,000 - \$20,000. Adelaide, 100 km. Apply owner, 084-833-256 AH.

COMMUNITIES

FIVE ACRE SHARE, 360 ac legal MO: private solar cabin, perm crk, gas fridge/stove, s/c/stove, ph avail, f/trees, gardens, c/port, shadehouse, community water reticulation. Environmental lifestyle, close Nimbin, Kyogle, Lismore. \$53,000 ONO incl all fixtures & fittings. Details: Russell, PO Box 510, NIMBIN 2480.

LISMORE, 25 km, 5 1/2 ac share council approved MO. Three ac cleared, remainder regenerating r/forest. Caravan/annexe, sheds, lge outdoor living area. Gas HWS, great homesite, crk through property, solar power. Gravity-fed water supply, spring-fed dam. Chook run, 1/2 share in house cow. Tree nursery, organic vegie garden, 40 f/trees, lots of native trees and shrubs. Phone connected. Close to primary school. \$55,000. Ph: 066-880-166.

CRYSTAL WATERS PERMACULTURE village, SE Qld, charming, comfortable, peaceful, 2 b/r house with self-cont cabin, c/port, pond.

DEADLINES: GR 114 - FEB 29TH
GR 115 - APRIL 30TH

Over 1 ac deep, rich soil. Organic gardens. Council approved composting toilet, grey water system, 12V & 240 V. Beautiful atmosphere. Great for children. \$125,000. Ph: 074-944-717.

KYOGLE, SOLAR POWERED HOUSE, 10 ac share in 960 ac, perm spring. \$55,000. Ph: 066-322-503.

LILLIFIELD COMMUNITY, 330 ac, beautifully forested land in hills between Lismore & Murwillumbah, 20 mins from Nimbin & 1 hr from coast. Council approved MO, 5 ac share for sale, c/van, shed, partially landscaped, dam water. \$23,000. No cats/dogs. Ph: 02-301-767.

CENTRAL VICTORIA, 1/2 of 1/3 share in 40 ac completely surrounded by state forest, 1 hr from CBD Melbourne via freeway, 20 mins Castlemaine, Daylesford. Views, lge dam, resident kangaroos, wildlife, fenced garden. Share incl modest w/board home close to communal mud brick building with all facilities. \$16,000. Reluctant sale; owner's life has led north. Ph: Sylvia, 03-383-4570 AH, 03-347-2860 BH, Alastair, 066-494-242.

NOOSA HINTERLAND RETREAT, Starlight Community, 320 ac, 19 ac for sale, company title. Solid timber house, r/forest surrounded with crk frontage & deep rock pool. Solar, gas, 2 x 3000, 1 x 5000 gal tanks. School bus. Noosa 20 mins, Brisbane 1 hr. Additional house site on ridge, spectacular views. Orchard & permaculture areas with f/trees. Sheds & studio. \$72,000 ONO. Info brochure avail. Ph: 074-749-085, 0412-735-738. PO Box 184, YANDINA, Qld 4561.

NIMBIN, 1/10 share 52 ha, council approved MO. Adjoining Nightcap Nat Pk. Beautiful r/forest environment, 2 b/r accom & studio on 2 ha. Wood stove, solar power/hot water, ph, perm water, estab f/trees, 4WD access. \$87,000 ONO. Ph: 066-886-142.

STONE/TIMBER COTTAGE on 200 ac permaculture orientated co-operative landshare. Stunning mtn/ocean views - lush, high r/fall Maleny area. Approximately 1 1/2 ac of permaculture gardens, black soil, 100 varieties fruit/nuts, composting toilet, dam/tank water, shed, chooks, etc. \$72,000 ONO. Ph: 015-585-486.

WALPOLE, WA, rammed earth cottage + 1/6 share in 320 ac near coast. \$75,000. Ph: 098-414-058.

BUSINESSES FOR SALE

OYSTER LEASES, Port Macquarie, 3 ac, shed, punt, aluminium boat & trailer, new outboard motor, 5 HP Honda pump, trays, sticks with catch, stock. Relaxing lifestyle, working concern. Ph: 065-858-336.

MANUFACTURING, self-suff and earth kind. Mobile machine that mills, pulps, adds additives to fireproof and sprays cellulose insulation (waste paper) into household ceilings. Highly profitable and environmentally benefi-

cial. Many other uses, such as making fast growing grass mulch, building boards, panel insulation and more. Made to order \$15,000. These machines last a lifetime. Call/fax 1800-625-635 for details.

NATUROPATHIC PRACTICE for sale, specialising in women and child health. Suit 1 or 2 practitioners. Located sunny Cairns, cheap rent. Included in price are client base, workshops to facilitate handover and training, some furniture, client bookings from day 1. Great opport. Details, ph Anne Maree, 015-965-524.

MASSAGE THERAPY CENTRE, farst coast of NSW, estab in a stunning environment of Australia's finest beaches, forests, lakes and snow. For a great lifestyle and rewarding job satisfaction. Owner sells for personal reasons. Ph: 018-116-828.

PROPERTY WANTED

WITHIN THREE HOURS OF SYDNEY, bush acreage to buy with/without dwelling. Also with possibility of building 1, 2 cabins. Must be bush setting. Quick settlement okay. Ph: 02-307-229.

BUSH BLOCK TO \$15,000 in NSW, Vic, Tas, ACT or Sth Qld as starting point for quiet, young GR minded person. No hot/dry regions. Snow's fine. Power unnecessary. Looking to buy from March/April. Unit 6, 4 Collyer Crt, LINDEN PARK, SA 5065.

FOR RENT

VICTORIAN WESTERN DISTRICT, cottage, 2 b/r, lge lounge & living area, bathroom, kitchen, elec & wood stove, 3.5 ha, perm crk. Rent neg. Ph: 03-9545-8528, work.

MURWILLUMBAH, SHARE HOUSE, 1 other, own room, open plan, lge garden, quiet street, n/s, GR person. Semi-vegetarian mature responsible, help with garden. \$50 + expenses (LETS). Ph: David, 066-727-014 home, 075-240-777 work.

SOUTH-EAST QUEENSLAND, highset, w/b home, 3 1/2 ac, views, bush, dams, garden. Suit those seeking to try rural living, w/out giving up the security of their city jobs. Handy to facilities. \$125 per week. LOWOOD 074-262-196.

QUIET PROPERTY, FIVE ACRES riverfrontage adjoining Alpine Nat Pk near Omeo, with lge mud brick house. Prefer mature person/s with permaculture experience to continue development. Solar/hydro/diesel power, telephone. Ph: 041-140-8499.

LARGE CARAVAN, Hunter Valley bush block, for vegetarian, n/s person(s), in exchange for assistance, while sharing house. Visitors welcome. Ph: 049-382-036.

LONE PARENT with good moral values wanted, to share house in small friendly town close to schools and amenities. For further details ph after 6 pm: 054-922-701.

Make Your Editor Smile -
Punctuate!

GRASSIFIEDS

FOR RENT

CARETAKING OPPORTUNITY, reduced rental, 3 b/r house, acreage, crk, 23 km Lismore. Ecologically aware, addiction free vegetarian(s) preferred. Box 36, LISMORE 2480. Ph: 066-886-259.

CHARMING COMFORTABLE 3 b/r solar mud brick house in lovely bush setting. River & crks run through property, owned by Starle Friendly Co-op. Schools easily avail. \$75 pw, 18 month lease, in Bega Valley. Enquiries: 064-942-027/941-878.

FOR RENT - BATLOW NSW, charming 1 b/r cottage in hidden valley close to town and shops. Suit alternative couple. Own hydro power, part furnished. \$65 pw. Ph: 043-972-512.

MYALL LAKES: caretakers sought for house (studio, library, pool, gardens, chooks). March '96-Jan '97. Suit creative agenda, green thumb. Ph: Chris, 049-978-189 for details of expected commitment/costs.

WANTED TO RENT/CARETAKE

SKILLED HORTICULTURIST with a sensitivity to ecology, partner, 2 children, bees, chooks, look to caretake and contribute on a perm basis, development of a property based on ecologically sustainable principles. Call 02-655-1071, or 02-656-1006 after 8pm.

WANTED TO RENT, acreage. East coast NSW, from Campbelltown, W'gong, Shell Harbour, Kiama to Nowra. Inland to Mossvale. Needed 2 x 2 or 3 b/r homes. Power & water essent, perm stay from April-May '96, 2 adults, 1 child, 3 dogs. Lowest possible rent. Ph: 053-317-602.

CARAVAN SITE with power in nth NSW for vegan couple with baby and old dog. Interests: crafts, markets. Contact: Wendy Hodge, C/- PO, LONGFLAT, NSW 2446. Ph: 065-874-430, 015-001-244.

WOLLOMBI/WATAGAN VALLEY. Working female wishes to rent/caretake house with quiet, rural outlook. Prefer older or alternative style house. Condition not as important as privacy and peaceful setting. Prepared to contribute to upkeep of property. Excellent references: Ph: Amanda, 043-551-282.

MOTHER OF TWO requires house. Long-term rental, SA semi-country. Show dogs must be allowed. Ph: 08-262-1864.

SHARE ACCOMMODATION wanted by a single male pensioner for 1-2 months on a MO farm in a community. Let me experience your way of life. Michael (GR 113), C/- PO Box 242, EUROA 3666.

EURASIAN FAMILY with 3 young children want to move to the mainland. Extensive knowledge and experience in organic gardening, wine and cheese production, radio communication, architecture, and much more. We need to be productive, and would like to rent in a caring community with LETS system. Tom & Raquel (GR 113), C/- PO Box 242, EUROA 3666.

PLACING AN AD? See page 70 for details

RENT/CARETAKE house/cottage in Tassie. Willing to paint/maintain house/garden for negotiable rent. Nonsmoker, no ties. Possible purchase at later date. Info pls to: JS (GR 113), C/- PO Box 242, EUROA 3666.

WANTED

NATIVE PLANT MATERIALS. Wattle blossom, gum nuts, etc. All types, fully dried, native materials considered. Large quantities preferred. Good prices plus freight paid. Contact: Peter Hunt, PO Box 53, NORTHCOTE 3070. Ph: 03-9482-2677.

MINERALS/FOSSILS, semiprecious stone for lapidary work. Decorative minerals & fossils for collection. Any attractive Australian material considered. Examples include quartz, amethyst, agate, chrysoprase, etc. Peter Hunt, Nature's Workshop, PO Box 53, NORTHCOTE 3070. Ph: 03-9482-2677. Fax: 03-9481-1393.

WANTED, CARETAKER for property 3 hrs from Sydney to help develop productive gardens. 'Caretaker (GR 113)', C/- PO Box 242, EUROA 3666.

WORK IN EXCHANGE FOR BOARD, Sabbath-keeper please. P Gray, Sheffield, Tasmania 7306. Ph: 004-912-408.

LADY, ASSIST HOST FARM, (WWOOFs), n/s, animals, vegies. Rent neg, ours/your van, 10 ac coastal SE Qld. Col, 28/20 Banks Ave, TWEED HEADS 2485.

EAST GIPPSLAND. I am seeking an honest, caring, genuine, down-to-earth person, or couple, wanting to start permaculture lifestyle. Required some time early 1996, to live and work on sml property with some native bush. I envisage developing the sml farm as a show-place of permaculture, and sml business. This is a perm ongoing position, with opportunity for self advancement, working around a 4 day week, with a monthly cash payment. I am looking for a person with a range of talents such as building and permaculture. Shopping centre, beaches, fishing, only mins from property. Apply in writing, outlining your lifestyle, main interests and references. Post to: Caretaker Position, PO Box 413, FYSHWICK 2609, Canberra.

WANTED GRs 1 & 3. Pay \$20 each. PO Box 527, NANANGO, Qld 4615.

EXCHANGE

LIFESTYLE EXCHANGE - 'Ena' traditional timber yacht, 45', built 1936, lovingly restored '87-'94 by shipwright owner. Designed for living aboard. Set up for long distance cruising, with all the gear in excel condition. Fitted out in red cedar, silver ash, red bean & mahogany. Solar powered. Set up for 4 people. Exchange for rural property, all offers considered. \$130,000. Prefer nth NSW. Ph: 015-165-392, or 079-583-209.

FOOD & KITCHEN

MOUNTAIN COTTAGE GOURMET FOODS are now offering by mail order their range of exotic jams, chutneys, jellies and pickles. For a full product listing please send a 45c stamp together with your name and address to: PO Box 105, BLAXLAND 2774.

POLLEN, NO ADDITIVES, 450g sample pack \$9, 1.9kg pack \$32.50, 4.7kg pack \$65, 14kg drum \$175. Prices incl p&p. JM Read, 8 River St, MURRAY BRIDGE 5253.

HOME STONE FLOUR MILLS - mill your own stoneground wholemeal flour for cakes & bread at home with a Retsel Little Ark stone flour mill. Endorsed by Housewives Assoc. Write for catalogue: Retsel Distributors, PO Box 712, DANDENONG 3175, encl 3 postage stamps. Ph: 03-9795-2725. Distributor enqs welcome.

HANDCRAFTS

HAVING DIFFICULTIES OBTAINING sml gauge brass screws, hinges, catches, & associated brass fittings? We have an extensive range of 0g, 1g, 2g, 3g etc from 1/4" long to 1". Also various woodworking tools, glues & abrasives. Backed up by a sharpening service. Send \$3 for catalogue (refundable off first order). East Gippsland Saw Service, PO Box 1168, BAIRNSDALE 3875. Ph: 051-521-001. Fax: 051-521-001.

NATURAL COLOURED WOOL, scoured & carded, ready to spin. Variety of shades. \$25 per kg + postage. For stocklist send SAE to: 'Shiloh Easy Spin Wool', PO Box 295, DRYSDALE 3222.

SEE LIVESTOCK SECTION for handspinnners opportunity. Ph: 057-905-214.

MAKE YOUR OWN EARRINGS KIT, now only \$19.95 + \$4.95 postage. Everything you need to make 30 pairs of earrings, incl glass beads, attachments, pliers, etc in a sturdy organiser box. Easy to follow instructions. Brochure avail or send cheque, money order or credit card details to: DL Quality Crafts, PO Box 418, MULLUMBIMBY 2482. Ph/fax: 066-841-772.

THREAD BUNDLES, stranded cotton in bundles of 100 x 8 m skeins in 50 assorted colours. Shades matched to DMC - \$29 post free. The big bundle of 240 colours - \$70 post free. 24 (12pr) wooden lace bobbins, torchon style popular design, excellent for beginners \$33 post free. Price list avail. B/card, M/C, Visa, M/o, Chqs. Arty & Crafty, PO Box 40, DAW PARK 5041. Ph: 08-277-3763 AH.

SPINNING FLEECES, WIDERANGE NATURAL colours, rug/weaving/medium/fine. Natural fleeces, washed and carded, handspun lots avail on request. Ph: Melissa, 053-689-390, or Carmen, 053-689-580.

CELTIC, MAORI AND ABSTRACT handcrafted lead-free pewter pendants. Send stamp for catalogue. Splendiferous, PO Box A1286, SYDNEY SOUTH 2000.

Please print your ad clearly
so we can do likewise

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HANDCRAFTS

STPATRICK'S DAY CARDS for 17th March, original hand-drawn, professionally printed, black and white, Aussie Irish flavour, \$10 for set of 6 incl postage. Order early. Good value. Terrie, 12 Dawn Ave, CHESTER HILL 2162. **AAAAA/FRAGRANT CRAFT SUPPLIES** direct from source - potpourris (botanical & gemstone), fragrances (inc similar to Chanel, Opium, etc), botanicals (roses, lavender, orris, etc), books, fragrant gifts, etc. We supply from beginner to chain store with great quality products at prices as low as \$14.40 kg (potpourri), \$26.40 kg (fragrances). Write for free mail order catalogue or visit our extensive, centrally located showroom/factory outlet ... Nature's Workshop, PO Box 53, NORTHCOTE 3070. Ph: 03-482-2677, fax: 03-9481-1393.

ESSENTIAL OILS, POTPOURRI & natural products - for all aromatherapy & fragrant craft work. We are the manufacturers & suppliers of raw materials for making massage oils, soaps, cosmetics & household products. Our extensive range includes: 100% pure & natural essential oils, absolutes, fragrances, vegetable oils, gums, waxes, extracts, potpourri, herbs, spices, pottery & containers. Buy from us direct, small or bulk sizes & save with our low prices. Write for FREE mail order catalogue to: Auroma, 39A Melverton Drive, HALLAM 3803. Ph: 03-9796-4833, fax: 03-9796-4966. Or visit our shop at 86 Burwood Rd, HAWTHORN 3122, ph: 03-9818-2673.

CRAFT WORKSHOP VIDEOS: Learn at home at your own pace from your personal, highly qualified instructor. VHS titles include spinning, weaving, beadwork, basketry, applique, tatting, knitting, crochet, lace making, felting, fabric painting & more. For full catalogue send long SAE to: Quick Spin Wool, Dept GR, RMB 1215, Shelford Rd, MEREDITH 3333. Ph/fax: 052-868-224.

BEADS! BEADS! BEADS: Unique selections of handmade glass, metal & wooden beads. Also findings, threads, & kits avail. Cost \$8 for samples, colour copy & info. Write to: TSUNAMI, PO Box 29, MARGARET RIVER 6285.

MISCELLANEOUS

INCUBATOR PLANS - build it yourself with our unique new concept and extensive sets of plans for less than \$100. Guaranteed 100% efficient. Seven day technical phone support. \$24.95 plus \$3.95 P&H. Send cheque to: PO Box 134, FINGAL 7214. Ph: 003-742-306.

WASHING MACHINE - twin tub, Hitachi, semi-automatic, 3 wash modes, 4kg load, excel condition. Conserves water. \$300 ONO. Ph: 056-231-619.

BOAT, FORTY-ONE FOOT, cruising yacht, near complete. Bargain \$20,000. Ph: 052-432-230.

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and others are now avail from: **FLUTEMAN**, 4 Short St.G, NEW BRIGHTON, NSW 2483. Ph/fax: 066-802-912.

FLY KILLER, nonpoisonous. Be fly free all year. Available from Snow's Enterprises, Deception Bay Rd, DECEPTION BAY 4508. Ph: 07-3888-3707. Send \$12.50 with address. B/ card, M/card, Visa, chq. Guaranteed to work. **TORCHES, NEW OUTDOOR TYPE**. Dazzling 30 watt brilliance. Ten times the power of ordinary torches. Rechargeable with common 12V charger. \$110 ea. Ph: 079-467-118.

HORSEWORKS, made by Clyde Engineering in good order, \$550. Two block making machines. One brick making machine, \$400. Corn planter, horse drawn \$250. Two broadaxes, new \$200 each. Lots of hard to find items. Gunnedah Country Collectables, 96 Bloomfield St, GUNNEDAH (opp RSL Club). Ph: 067-421-499 BH, 067-421-191 AH.

TIPIS, 10'-22', from \$460. Colonial tents, tarps, awnings, annexes, canopies, tonneau covers, swag rolls. Leather, deerskin, suede clothing, any size, any design, yours or ours. Western & Indian style fringed gear a specialty. Wholesale prices. Bojo Products, BENALLA. Ph: 057-622-145. Tipi hire avail.

COONOOON-GIBBER WOOD HEATERS. Will burn for days w/out going out & heat large areas. \$375 freight-free to your door. No assembly required. For more info: Dave, 14 Sixth Ave, CHELTENHAM, SA 5014.

THE HOMEBUILT DYNAMO (construction plans). Brushless electric generator, 1000 watt DC at 740 RPM. A\$85 postpaid airmail from: Al Forbes, Box 3919-GR, AUCKLAND, New Zealand. Ph: 0011-649-818-8967 anytime. Philips Ferroxdure rotor magnets (3700 gauss) kit now avail cut to size and magnetised.

CHIP HEATERS. No elec needed for instant hot water, operates from town or tank water supply. Enq: Ray Williams, 5 Bonnie Springs Rd, JINDERA 2642. Ph: 060-263-621.

WIND GENERATORS, 2X24V Ampair with 30 ft poles, will separate. \$2700 pr. Ph: 054-762-401. PO Box 55, NEWSTEAD, Vic 3462. **STOP DRINKING POLLUTED ROOF RUN-OFF!** PFR valves are the proven effective way to keep harmful roof-sourced pollutants (paint flake, agrispray, faeces, etc) out of your family's water supply. Guaranteed! Drink pure water, not filtered pollution! Easyfit! Install - Relax! No ongoing costs! From \$36. Free information: PFR, Box 65, EIDSVOLD 4627. Ph: 071-651-484.

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JERSEYS, TWO HEIFERS, 4 mths old. Bucket reared, make good future house cows. Ph: 057-270-249.

RARE AND ENDANGERED Large Black pigs. Purebred, unregistered weaners from stud stock avail. Hardy, placid and quick growing. Ph: 054-943-050.

HANDSPINNERS - breed your own kid mohair for sheep prices. Quality starter flock. Six 2 yo does + 1 buck. Euroa area. Ph: 057-905-214.

PIGLETS, FREE RANGE, Saddleback, Durock, Large White crosses. Ph: 074-652-359.

BLACK SHEEP SALE, Beaufort Showgrounds, 21st April, 1996. Silent auction starts 10 am. Enquiries: 054-662-317.

RARE OUTDOOR PIGS. Wessex Saddleback, weaners & breeding stock available. Contact E & H Clare, PO Box 546, CABOOLTURE 4510. Ph: 074-968-271.

'PINEROCK' DAIRY GOATS! Quality animals at reasonable prices. Ph: 057-270-249.

LITTLE COMPANION PIGS, selectively bred for small farms. Health tested breeding stock & neutered pets for sale. Pygaminni Farm. Ph: 079-221-334.

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GARDEN & ORCHARD

QUALITY ORGANIC TOBACCO SEED, (min 60 plants). Easy techniques for striking, growing, harvesting, drying, curing & cutting. Simple leaf press plans. Seed saving instructions. All you need for FREE TOBACCO FOREVER. City GRs also win with this terrific money saver - tobacco grows successfully in pots (even indoors). Ongoing advice avail. Cost \$14.50 (incl p&p). Pete Bradbury, Box 65, EIDSVOLD 4627. Ph: 071-651-484.

HARDY HERBS AND PERENNIALS suitable for frosty areas. Mail order 1st March to 30th November. Catalogue \$2.00. Herb of Grace Nursery, Langrove, Pine Valley, COOMA NSW 2630. Ph: 064-524-511.

POTATO ONIONS, multiply from bulblet, growing instructions provided. \$1/bulb, post incl. Legislation prevents supply to WA. Bev McDowell, Istana Farm, Jerangle Rd, BREDBO 2626.

EARTHWORMS, bed run red & tiger worms for compost or bait \$18 per 250g (approx 1000), or \$60/kg, post paid. Instructions provided. Bev McDowell, Istana Farm, Jerangle Rd, BREDBO 2626.

HUNDREDS OF HARDY HERBS, perennials & shrubs avail by mail order. For 1996 list, send 3 x 45c stamps to: Flowers, Leaves & Spines, RMB 2743, MARYBOROUGH VIC 3465. Ph: 054-614-390.

BLACK WATTLE SEEDS (*Acacia cincinnata*), fast growing tree, nitrogen fixing, good fuel wood, suitable for posts, poles, cabinet work, turnery, tool handles, longbows; leaves make excel fodder, attracts king parrots, excel potential for agroforestry purposes, pale yellow scented flowers. Send cheque/money order for \$2.50/packet, payable to: Squeworms Worm Farm, The Gorge, FINCH HATTON, QLD 4756.

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GARDEN & ORCHARD

NATIVE GRASSES & WILDFLOWER SEED. Now avail from Bendigo Environmental Services, PO Box 117, BENDIGO, VIC 3550. Send for catalogue or ph: 054-414-688.

EARTHWORMS. FREE, the most comprehensive catalogue of books on this subject. Send business size SAE. Worm World, PO Box 204, GR, ROLLINGSTONE 4816. Ph: 077-707-001.

ECHINACEA SEEDS, easily grown valuable herbal immune system booster. Lovely flowers. Full instructions for cultivation & processing of extract & seasoning. Save heaps. \$10 + SAE to: John, 28 Bayfield Rd, GALSTON, NSW 2159.

EARTHWORMS FOR SOIL IMPROVEMENT, mixed Red Wrighlers/Tigers/African Nightcrawlers (tropical worms). \$18/200 g (approx 1000). Includes care instructions & postage Australia-wide. Squworms Worm Farm, GR, The Gorge, FINCH HATTON, Qld 4756. Ph: 079-583-359.

COMPANION PLANTING CHART. Over 90 vegetables, herbs & fruits, including plants as insect repellants. Sow When Chart. Suggested sowing times for 100 vegetables, herbs & flowers. Mail order \$5 each + \$2.50 p&p (up to five copies). Plum Products (G), PO Box 120, BRUTHEN, 3885.

EARTHWORMS, the 'speedy breeder compost worm' revolutionises your compost & transforms your garden. Just \$15 per 1000 worms. Price includes postage Aust wide & pamphlet on worm care. Wholesale prices \$30 per kg. Freight extra. Wormborough Farm, PO Box 794, TAREE 2430. Ph: 065-539-633.

TREEGUARDS all shapes/sizes from under 10 cents each. Bamboo stakes & weedmats. International Reforestation Supplies, 510 Bellbird Rd, BAIRNSDALE. Ph/fax: 051-579-404.

GOURD SEEDS, mixed ornamentals, mixed hardshells, mixed orn + hardshells, luffa sponge, calabash, snake bean, bottle medium, coloured corn \$4.50 pkt - minimum purchase \$9.00. Or 1 free \$4.50 pkt when you purchase 52 page *Gourd Growers Handbook* for \$16. Bulk pkts - 30 seeds \$10 ea. All price incl postage. Send your order to: Gourd Father Quality Gourd Products, PO Box 298, GR, EAST MAITLAND, NSW 2323. Money back guarantee!

RAINFOREST SEED COLLECTORS national link-up. Buy & sell local seed. Our newsletter has lots to offer. Local seed grows better & doesn't pollute your gene pool. Quarterly newsletter subs \$20, conc \$10. Offer local seed - free subs. RSC, Private Mail Bag, BELLINGEN 2454. Ph: 066-552-233.

COMPREHENSIVE CATALOGUE Australian native seeds. 1800 species. Price \$6 posted. Bliss Partnership, 28 O'Connell St, TAMWORTH 2340.

TOBACCO SEED. Organically grown (Virginian), cultivation & curing notes incl. Send \$5 to Lyn O'Brien, C/- PO, BARMAN 3639.

SEEDS OF UNUSUAL, useful Asian vegies, subtropical fruits, herbs, spices, fragrances,

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See page 70 for details

curiosities, cottage garden flowers suit hot weather. Open pollinated. Easy grow. Seeds \$1 pkt, plants \$2.50 each. Mail order only, no visitors please. For list send 3 stamps to Lorraine Blaney, Wallace Rd, BEACHMERE 4510.

COURSES

HEALTH COUNSELLING correspondence course from Life Science Institute, USA. Enquiries: Jim Lanham, Lakesway, PACIFIC PALMS 2428. Ph: 065-544-136.

FREE BIBLE & HEALTH COURSES. Also *Vital Issues* newsletter, covering world events, health, environment, religion. P Gray, Box 212, SHEFFIELD, Tas 7306. Ph: 004-912-408.

BIODYNAMIC FARMING & GARDENING, introductory course, cost \$40 per week. Tues & Wed, 9.00 - 3.15 pm, commencing Feb 6th, 1996. Enquiries - Helen Coek, 03-9876-5199.

SOUTHCOST FIELD DAY, sustainable land use & living. The first one was a fantastic success and it's on again. 17th & 18th August. CANDELO, the far south coast NSW. Ph: 064-942-014.

IPC LIVESTOCK BARNEVELD COLLEGE is a practical agricultural training centre situated in the town of Barneveld in the Netherlands. Over the years IPC Livestock Barneveld College has developed from a sml practical training centre on poultry husbandry to a world-wide, well known institute providing training, both nationally and internationally, in pig & poultry husbandry, animal care & milling technology. Highly qualified and worldwide experienced instructors ensure optimal programmes. For more info contact IPC Livestock Barneveld College, Head Dept of International Studies & Co-operation Programmes, PO Box 64, 3770 AB Barneveld, The Netherlands. Ph: +31 (0) 342 414 881. Telefax: +31 (0) 342 492 813.

GOAT SEMINAR, two days, May 4-5. Organised by Dairy Goat Soc Qld branch. All breeds represented, accom avail. For details contact: Lois Beedie, 1860 Mt Cotton Rd, CARBROOK 4130. Ph: 07-206-6359.

HARSH CLIMATE SELF-SUFFICIENCY, workshop, 31 March 1996. Paul Dann has a 15 ha property which provides both a full range of food and wilderness enjoyment at Mongarlowe near Braidwood in a harsh climate on the edge of the Southern Tablelands. Prospective landholders can observe and experience an ecosystem of forest and productive land use that has been developed over 15 years. Dams are used not only for irrigation, yabbies and fish but also for floating vegetable gardens. Good practices in tillage and pastures using organic and other techniques will also be covered. For details contact: Elizabeth Waddell on 06-226-2223.

HUNTER - NEWCASTLE Permaculture courses. Demonstration farm based small group learning. Emphasis on practical applications. Urban and rural design. Trevallyn Permaculture Centre. Ph: 049-389-528. PO Box 22, PATERSON 2421.

YOGA VEDANTA, beginners correspondence course for adventurous people interested in mental, physical, spiritual, emotional, psychic growth. Write: PO Box 280, WANNEROO, 5065, WA.

PERMACULTURE CORRESPONDENCE COURSES: Introductory, Design certificate, plus courses tailored to meet your interests/needs/time/mobility. \$15 (refunded upon enrolment) full details. 'Permaculture Visions', 280 Cordeaux Rd, MT KEMBLA 2526.

CORRESPONDENCE STUDIES. Diploma & certificate programmes, professionally recognised. Learn for personal interest or business practice. Select one brochure from: Aromatherapy, Vitamin & Nutrition therapy, Traditional Folk Medicine, Animal Medicine (The 'Green' Vet), Psychic Healing, Pre-school Childcare (Nanny-Minder), Safety & Security Counselling, Personal Psychic Development, Traditional Wicca. Wiccan Home Studies, PO Box 138, SURRY HILLS 2010. Ph: 02-319-6166 bus hrs only.

HERBAL MEDICINE. The School of Herbal Medicine, estab in Australia in 1985, offers a one year home study course. For details, write to: PO Box 2310, TOOWOOMBA 4350.

DOWSING, a definitive home-study course in radiesthesia, dowsing & radionics for those with enquiring minds! Rediscover the lost art of using natural radiations ecologically. Over 200 pages of comprehensive notes covering health, environmental & agricultural applications of this ancient art. The Academy of Natural Therapies, 23 Taree St, BURLEIGH HEADS, Qld 4220. Ph: 075-934-650. Phone or write for a free brochure.

MUDBRICK WORKSHOPS, intensive w/end with Brian Woodward, 16 yrs experience with earth building. Theoretical & practical sessions. Vegetarian meals provided. Great value for money. \$130. Write for dates: Earthways, WOLLUMBI 2325.

SELF RELIANCE ON YOUR OWN PROPERTY. This Permaculture course will provide you with practical skills, techniques & info to create your own productive & low maintenance property. Topics covered: design, species selection, establishment & integration of vegie gardens, orchards, tree crops, dams, healthy & energy efficient homes. Learn at Crystal Waters Permaculture Village through tours, demonstrations, hands-on practice, slides & talks by Frances Lang & Max Lindegger, tutors of over 1000 people in 17 countries. Dates: May 12-25, September 1-14. FREE Permaculture info kit: Green Harvest, 52/G, Crystal Waters, MS 16, MALENY Q, 4552. Ph: 074-944-676.

To avoid disappointment ensure
your ad meets our deadline

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COURSES

PERMACULTURE DESIGN COURSE, Date: April 6-15 1996. Venue: 'Willuna', Chiltern, NE Vic. Tutors: Vries & Hugh Gravestine. For particulars send SAE to: VR Gravestine, RMB 1130, CHILTERN 3683. Ph: 057-261-596.

HOLIDAYS

CHRISTMAS CREEK, LAMINGTON, 2 b/r, secluded cabin, magnif views, r/forest, bush walking, abund birdlife. Linen suppld. Ph: 075-448-166.

WEEKEND ESCAPES, GOLD COAST hinterland, fairytale cottage on acreage, 15 mins sea, mtns. En suite, b/room, all meals & therapies incl. \$100 pp. Groups welcome. Ph: 075-525-1539.

YACHT, THIRTY-SIX FOOT, modern, 4 beds. Feb-April: Gold Coast - Moreton Bay. April-Oct: Fraser Island area. Ex WWOOF host skipper, n/smoking. Share expenses. Write: Col, C/- 28/20 Banks Ave, TWEED HEADS 2485.

NATURAL HEALTH rejuvenation haven. Situated in a quiet rural bushland setting in the foothills of the Border Ranges of ntn NSW. Featuring: healthy lifestyle education, nutritional instruction, food preparation, vegan dishes, raw juice cleanse & detoxification programme, colonic therapy, steam baths, ensuited bedrooms, comfortable accom. The Retreat, GREVILLIA 2474. Ph: 066-364-275.

PRIVATE COTTAGE situated in the Tweed area. \$35 pn. Ph: Marina, 066-779-508.

SEASIDE, TUMBY Bayside Holiday Units. Spacious, en suite, family units. Tour Norm's Worm Farm, herb garden, bonsai display. Sales. TUMBY BAY, Eyre Peninsula, SA 5605. Ph: 086-882-087.

GET BACK TO NATURE at Barmah on the mighty Murray. Explore the largest natural river red gum forest in the world. Canoe the world heritage wetlands of international importance, off the beaten track, where wildlife abounds. For info kit ph: 058-693-347, or write to: Gondwana Canoe Hire, C/- PO, BARMAH, Victoria 3639.

SERVICES OFFERED

PERSONALITY PROFILE: Know and understand your four main life focus areas, General behaviour, Work, Social life, Love, for your greatest need, fulfillment for a more satisfying and contented life. \$50 payable to: Lionel Exell AIPC (Australian Institute Professional Counsellors). The Primal Place, 44 Curnow Street, Golden Square, BENDIGO Vic 3555. Ph: 054-413-683.

THE PRIMAL PLACE. The transpersonal perspective holds that there is an essential unity underlying the diversity of humanity & the material world. The transpersonal vision is one in which compassion, love & responsibility are experienced for all forms of consciousness, & a global ecological vision of all life. The transpersonal experience enables us to contact & integrate aspects of ourselves & discover

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whatever dormant ability & potential that is unique to you but have lost touch with. Rediscovering those lost aspects of ourselves that continually intrude & spoil our enjoyment, pleasure & success of our own lives can bring about a profound & deeply meaningful state of 'being'. A new sensory awareness. A new consciousness. There is another way to 'be'. Those repressed aspects of ourselves inordinately effect us all of our adult lives & are expressed in other ways; discontentment, depression, anxiety, fear, nervous habits, isolation, loneliness, obsessional work & projects, use of drugs, aggression, anger, sexual dysfunction, inability to assert oneself, inability to relax & feel real pleasure. And in our r/ships. They also show themselves in a multiplicity of chronic psychosomatic complaints. We can be in a constant search, always in the wrong place. The transpersonal dynamic experience enables us to find the realms of the human unconscious to the gateway of personal transformation. Sooner or later we each must face ourselves honestly. Who we are. Where we came from. To what are we travelling towards. The Primal Place, 44 Curnow St, GOLDEN SQUARE 3555. Ph: 054-413-683.

ASTROLOGICAL FERTILITY CHARTS. Find out your monthly period of maximum fertility. Three years personal calendar (lunar-phase cycle). For more info: Astrobe Charts Service, PO Box 1262, COFFS HARBOUR 2450. Ph: 066-534-676.

ASTRO-MAPPING. Order your personal Astro-mapping kit and find out the best geographical places for love, success, happiness & relocation. Send name, address, date, time & place of birth + \$50 to Astrobe, Box 1262, COFFS HARBOUR, to receive maps & info booklet. For more info call 066-534-676.

HOME PLANS. 90 plans for handcrafted homes of mud brick, rammed earth, stone & pole frame construction. Mail \$58 (postage incl) for *The Earth Builders Construction Detail & Plan Catalogue*, to: John Barton, Building Design, 31 Sharp Street, NEWTOWN, Geelong 3220, or ph: 052-224-249 for fixed quote to draw/document your home plan.

OPPORTUNITIES

FREE ACCOMMODATION on beautiful 160 ac property west of Bundaberg, in SE Qld, in exchange for gardening etc, about 8 hrs p/w. Share property with vego couple. For single person or parent & child. Wayne & Milu, PO Box 235, GIN GIN 4671. Ph: 071-572-736.

BLACKSMITH AND SADDLER, opport avail to join an early Australian settlers' village in the outskirts of Sydney. These skills are being lost through technology. Join us in our preservation of the 'old' skills whilst displaying & selling your craft. All expressions of interest to: PO Box 734, WINDSOR, NSW 2756. Or ph: 045-752-184.

GARAGE SALES. You can make big money with this and many other home-based business concepts. Simple, yet effective methods that can help secure your financial independence. For free details send SAE to: PO Box 110, CROYDON 3136.

CLUBS

NATIONAL ALLERGY ASSOCIATION of Australia (NAAA). Information, counselling, newsletter. For info & membership write to: PO Box 280, PARRAMATTA 2124.

AFFILIATED DONKEY SOCIETIES OF AUSTRALIA. For info on membership, magazines and help avail write to: Mrs Pam Newton, PO Box 63, HURSTBRIDGE Vic 3099, and you will be contacted by the representative in your state.

HEALTH & BEAUTY

WHITE TAILED SPIDER BITE. Don't suffer so long or lose your limbs. Learn the natural self-help method. Send \$10 to: Sister Christa Palfy, 4/35 St Leonards Rd, HEALESVILLE, VIC 3777. Ph: 059-625-255. If any letter accidentally not answered, please ph.

HOMOEOPATHICS, Bach & Australian bush flower essences: Australia-wide delivery, free catalogue avail. The Natural Remedy Company, PO Box 1060, DEVONPORT, TAS 7310. Ph: 004-246-168.

FEELING LOW? Perk up and get back on the go, reduce stress with Guarana. A pure (1st grade) dietary supplement from the Amazon rainforest. 60 x 500 gm capsules \$18.95, 12 pieces Gogum \$3.00, 50 gm tub powder \$12.95. P&P \$3.00. Free Gogum with orders over \$15.00. Send SSAE for FREE SAMPLE. Better Health Products, PO Box 269, TWO WELLS, 5501. Ph/fax: 085-202-377.

NATURAL SKIN CARE: Soaps, creams, salves, using Australian botanicals. Handmade scented candles. Resellers welcome, SAE to: Forest Edge, 242 Albert St, MARYBOROUGH 4650.

ARE YOU ALLERGY/ECZEMA PRONE? Have super-sensitive skin? Or just prefer to use *genuinely* natural products on your skin? In a synthetic world, discover the REAL benefits of Tasmanian Leatherwood Honeycare - luxurious handmade organic skincare, Tasmania's FRESH alternative. Handmade with pride & care, using only Tasmanian Leatherwood beeswax, honey, bio-dynamic Australian oils, flower waters, pure Essential Oils etc. NO petrochemicals (sorbolene/mineral oil), synthetics, chemicals, colours, preservatives. Earthsafe - Affordable - Effective. Send SAE for catalogue to: Tasmania's Fragrant Earth, (GR), 3/328 Murray St, HOBART 7000, Tasmania. Ph: 002-344-259.

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HEALTH & BEAUTY

SKINCARE PRODUCTS. For complete range and list of items, please send SAE to: D Sloane, PO Box 2444, BUNDABERG 4670. No colours or preservatives.

NATURALLY WILDE HERBAL SKINCARE - simple, economical, environmentally friendly. For your free catalogue full of yummy creams, lotions & potions, please send a business sized SAE to: Naturally Wilde, PO Box 380, ELTHAM 3095. Business/wholesale enq welcome. Ph: 03-9439-6477, fax 03-9439-3220.

CALENDAR EVENTS

AUSTRALIANA COTTAGE CRAFTS Annual Craft Fair. Easter Sunday, 7th April, 10am - 2pm. Free Admission. Lots happening. Torbanlea Rd, Takura, HERVEY BAY, Qld 4655. For info ph: 071-287-430.

THE AUSTRALIAN WOMEN'S WEEKLY needlework, craft & art fair and quilt showcase '96, April 18-21, 1996, The Melbourne Exhibition Centre, Clarendon St, STH MELBOURNE. \$9 adults, \$5 concession, \$20 family (2 adults & 3 children under 16). Australia's largest craft festival is coming to Melbourne! Revel in the latest craft & quilt trends from around the world, enjoy hands-on demonstrations and free non-stop workshop action. Substantial discounts for groups of 20 people or more. For more info contact the Craft & Quilt hotline on 0055-24309 (25 c per 27.3 seconds).

MELBOURNE FESTIVAL FOR MIND-BODY-SPIRIT, with an exciting change in venue to the new Melbourne Exhibition Centre, it's shaping up to be an outstanding event. The festival will run from 21st-24th March 1996 celebrating life and well being. Over 200 exhibits, hundreds of displays offering spiritual healing, aromatherapy, massage technique, relaxation methods, complementary medicines, natural healing & a comprehensive programme of lectures & workshops. Further info contact: Ann Morrison Public Relations, ph: 03-9654-6936, fax: 03-9654-6947.

FOURTH APOLLO BAY MUSIC FESTIVAL, from 8pm Friday 15th March to 6pm Sunday 17th March, 1996. Mail and Bass bookings now open. Ring: 03-9509-0331, or 052-377 180. Fax: 052-376-231. Or write to: PO Box 128, APOLLO BAY, 3233, for brochure.

NONCONVENTIONAL HOMES TOUR, a self-drive tour of a selection of unique homes near Taree on the mid-nth coast of NSW. Meet the owners & builders of these environmentally friendly homes which incorporate poured & rammed earth, mud brick, wattle & daub, stone & timber, recycled materials, active and passive solar designs. Also displays and sale of earth friendly products, local art, permaculture and interesting & unusual food. April 6 & 7, 1996. Guide/maps \$20 per family. All enq to: Manning River Steiner School, during school hours on 065-513-403, or Walter Duber on 065-543-214 after hours.

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PUBLICATIONS

'NATURIST SUNLOVERS', international penfriends out now. Girls & guys worldwide seek contacts for friendship, romance, vacations. Full address, photos, etc. \$20, post free. A/P, C/- PO Box 10, STEPNEY, SA, 5069. Ph: 08-243-0517.

'GREENLIVING', info packed reference material for permaculture & living with the earth. Two reports covering asbinto to avocado incl cultivation notes, harvesting, propagation, recipes, preservation & natural pesticides. \$5.00 incl postage. Susan Owen, PO Box 92, ISLINGTON, NSW 2296. Ph: 049-694-165.

SECOND-HAND AND OUT-OF-PRINT BOOKS. Australiana, local history, Asia, Middle East, Africa, travel, biography, nautical, health, gardening, literature, poetry, crime, fiction, philosophy, mysticism, religious east & west, esoteric. Mail order service. Catalogues/lists sent on request, specify which. Peter Mitchell, Bookseller, PO Box 59, TANILBA BAY, NSW 2319. Ph: 015-250-613.

'GRASS ROOTS', complete set. \$240 incl postage. Ph: 077-873-572. J Miller, 4 Jane St, CHARTERSTOWERS 4820.

'GRASS ROOTS' issues 88-111, mint condition. \$50. Ph: 068-452-648.

FOR SALE: 'GRASS ROOTS' magazines, numbers 65-81, 90, 92-111. *Earth Garden* magazines, numbers 1-12, 14-70, 73, 75-76, 78-93. \$2 per issue plus p&p. Ph: 07-3297-0859.

'FARMERS OF FORTY CENTURIES' - permanent agriculture in China, Korea & Japan. This classic, out of print book is \$19.95 (post paid) from: Eclectic Books, 1 Palamino Crt, CONONDALE, Qld 4552. Ph: 074-944-645/ fax: 074-944-760. Limited quantity. Wholesale welcome.

BOOKS, OLD & NEW. Send for general list. R Suters, PO Box 127, FIGTREE 2525.

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NEW SOUTH WALES

PENNY, CONTACT PETER ASHMORE. URGENT!!!

WEATHER-BEATEN WOMAN, 56, nice smile, good mind, likes kids. Lives simply in astoundingly beautiful country. Seeks vegetarian(s) of happy outlook. Offer c/van with power & ph for some help. PO Box 850, TAREE 2430.

MALE, YOUNG 47, n/s, n/d, wishes to correspond with GR lady; race, appearance unimportant, the inner person is. No drugs or religion. T (GR 113), C/- PO Box 242, EUROA 3666.

BOWRAL/GOULBURN, single male of 44 yrs, country orientated to the marrow, trained horticulturist, slightly alternative, n/s, s/d, independent thinker with a wide range of interests that incl bushwalking, swimming, discussions, music, ballroom dancing & Australia's Colonial period. (Dislikes include McDonalds, commercial TV/radio and tax investigators.) Seeks alike-minded and situated lady of around my own age, with a genuine interest in establishing a lifelong mutually advantageous partnership. Contact Richard (GR 113), C/- PO Box 242, EUROA 3666.

GIRLFRIEND WANTED, frugivore philosopher, aged 42. Ph: 0055-29440, then dial 93194. BEAUTIFUL LADY, divorced, 1 child, requires masculine, bushy, alternative type, n/s,

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n/d, for love and happiness. View marriage on your bush property. Send photo and stamped SAE to: Athalie (GR 113), C/- PO Box 242, EUROA 3666.

OPTIMISTIC, SLIM, HEALTHY, widowed lady of 56 in a NW suburb of Sydney, looking for cheerful companionship, conversation & the odd night out. Common interests would incl gardening, a love of dogs, and a lively curiosity about the world. Like me you would be a n/s, a social or n/d, tolerant, warm-hearted & philosophical. Reply to: Ann (GR 113), C/- PO Box 242, EUROA 3666.

ENERGETIC INDEPENDENT WOMAN, middle-aged, well-travelled, educated, loving & caring, keen gardener, loves the bush, would love to share her life with a widower with younger children. It would be a deep wish of mine to be in a r/ship with a man who is not afraid to share his feelings and to have children in my life. Preferred area: up to 3 hrs from Brisbane. Tiare (GR 113), C/- PO Box 242, EUROA 3666.

MALE FIFTY-TWO, own home within sight of Mt Warning, into nature, gardening, swimming, spiritually inclined, quiet, n/s. Seeking lady companion to share home & life, photo appreciated. My vital stats are 5'2", 8 stone, olive skin, beard. Write: David (GR 113), C/- PO Box 242, EUROA 3666.

PROFESSIONAL WOMAN (38), with 7y old son would like to move from Sydney to nth coast NSW so that life can slow down enough for me to smell the roses. Possibly to share with other healthy lifestyle single parent. Am also interested in meeting same to share holidays. NN (GR 113), C/- PO Box 242, EUROA 3666.

QUIET MAN, SLIGHT BUILD, late 40s, nice home, acres, Shropshire sheep, shadehouses, satellite TV, cooking, lge dogs, n/s/d. Seeks lady view r/ship, sml build, practical thinker, similar age/interests, prepared to relocate. Please write with photo. Advertiser, PO Box 23, NANA GLEN 2450.

TALL, SLIM, ATTRACTIVE, intelligent, honest, creative, down-to-earth, 37 yo woman, seeking man of similar age and qualities. After too many years in the city I enjoy life in the country (near Hunter Valley), writing, singing, bushwalking, to name a few. I like being around dogs, horses, children and good friends. My soul mate would be responsible but not conservative in outlook, equally at home having meaningful conversations and uninhibited fun; is looking for equality and honesty in a long-term r/ship. If we have the above in common I would love to hear from you. Photo appreciated. Amanda (GR 113), C/- PO Box 242, EUROA 3666.

SIXTY YEAR OLD grazier wishes to meet lady approx same age to share my life with happiness & love. Central NSW. E (GR 113), C/- PO Box 242, EUROA 3666.

AQUARIAN WOMAN, 47 yrs young, vegetarian. Seeks lover/friend, for lasting r/ship. You must be intelligent, fit, gentle, confident & loving. Preferably between the ages of 45 & 55. I'm spiritually aware. My interests incl meditation, natural therapies, the environment, people, horticulture. I enjoy reading, nature, good conversation and a good loving man. Please send photo and astrol signs. PO Box 875, BALLINA, NSW 2478.

CAPABLE AUSSIE MALE, 46 yrs, New Age, vegetarian, n/s, loves a beer, loves life, own business, well travelled & read, country residence (acreage) nth rivers. Loves blues music, reading, live plays, movies, bbqs, football, horses, being close to nature and travel—wants to see the South American rainforests (with the new found friend) before they disappear. I intend to meet this special person, any age, with or without children, must have similar interests, having a family not out of the question. She must be positive, caring, easy-going, honest & capable. Write to: Micky, PO Box 637, MURWILLUMBAH, NSW 2484.

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QUEENSLAND

WOMAN, FORTY-TWO, n/s, s/d, positive outlook, fit, slim build, 5'8". Interests: pottery, art, films, music, books, bushwalking, sailing, travel, good food, conversation, seeking male who is gentle, sensitive, creative and appreciates a little romance. CP (GR 113), C/- PO Box 242, EUROA 3666.

MALE, LATE 30s, tall, dark, good looks, fit, own property. Seeking female, 5'8"+, athletic, independent, to 35, nature lover, not painted-face type. Send photos, particulars to: Amos C/- Post Office, OXENFORD, Qld 4210.

BORN AGAIN CHRISTIAN MAN, 34, seeks b/a Christian woman. Age open. I'm independent, above average looking, n/s, adaptable and have wide variety of interests. Lady must be Baptist, Church of Christ or Brethren. My tastes are open. Replies to: The Boxholder, PO Box 1286, MILTON, Qld 4064.

ENERGETIC INDEPENDENT WOMAN, middle-aged, well-travelled, educated, loving & caring, keen gardener, loves the bush, would love to share her life with a widower with younger children. It would be a deep wish of mine to be in a r/ship with a man who is not afraid to share his feelings and to have children in my life. Preferred area: up to 3 hrs Brisbane. Tiare (GR 113), C/- PO Box 242, EUROA 3666.

EASY-GOING CANCERIAN LADY, mid 50s, seeks an honest open r/ship with a spiritually aware male late 40s—early 60s. Someone who enjoys fishing, camping, dancing, good stimulating conversation, and quiet times. I'm an n/s, light s/d and vegetarian. Marion (GR 113), C/- PO Box 242, EUROA 3666.

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CONTACTS QUEENSLAND

ACTIVE SOLO DAD, n/s, interests - hiking, kayaking, sport, gardening, healthy simple lifestyles, intelligent conversation. Like to meet lady similar interests, 35 to 43, prefer SE Qld. Reply: G C (GR 113), C/- PO Box 242, EUROA 3666.

YOUNG 45 YEAR OLD, honest, caring man seeks female to share easy-going quality GR type lifestyle on nice part r/forest acreage Sunshine Coast hinterland. You will probably be a bit younger, reasonably fit, natural, and slim like myself. Please reply: Harry (GR 113), C/- PO Box 242, EUROA 3666.

WOMAN, YOUNG THIRTY-FIVE, loving, fun, caring, positive, adventurous. Relocating 'somewhere sth' after Feb. Would love to hear from you if you are happy, consistent, committed, adventurous, country orientated, spiritually aware, accepting & loving. Where are you? Please write: A M (GR 113), C/- PO Box 242, EUROA 3666.

I'M A YOUNG 50 yr old Christian lady looking for someone to share the sun rising over the islands, markets, travel, (music), etc. Must like dogs and be environmentally aware. Photo appreciated. Rae, Box 1411, YEPPON 4703.

MALE, EARLY FORTIES, seeks lady to live in for companionship & soul mate. Ph: 076-531-541 after 6 pm.

THERE MUST BE A LADY under 40 who would like to meet a broad-minded, tall, OK looking guy over 40, own business, s/d, full of fun. Life is too lonely alone. I'm div, no family, ex-farmer, languishing away in lovely Qld. Worn well - not out. You would love animals, bushland, be very rational, broad-minded, s/d, very loving, unconventional, extrovert. If you need a true friend, write! Photo appreciated. OZ (GR 113), C/- PO Box 242, EUROA 3666.

SABBATH KEEPER in SE Qld seeks fellowship/friendship. Currently doing lots of study but lack personal contact. Ex WCG - no wish to join ICG, PCG or UCG - reasons for that available. Also available literature from several other COG groups, addresses etc. Contact: Sabbath Keeper (GR 113), C/- PO Box 242, EUROA 3666.

PLACING AN AD?
See page 70 for details

VICTORIA

FEMALE, FORTY-SIX, slim, young at heart, smoker, s/d, warm happy caring nature. Loves horse riding, camping, fishing, dancing, dining, massage, open fires. Seeks friend 45-55. Ph: 03-9744-1660.

FEMALE, THIRTY-EIGHT, 5'4", slim, n/s, vegetarian, seeking soul mate. Quiet, hard working, caring environmentalist, professionally employed and living on acreage on the Mornington Peninsula. I enjoy nature, home life, organic gardening, country living and open fires. I love horses and living in peace and harmony. I dislike loud aggressive people, cities and noise. I am seeking a caring, loving, n/s, intelligent man who is fit and active, financially secure with similar interests. Reply: Environmentalist (GR 113), C/- PO Box 242, EUROA 3666.

COUNTRY GUY, 31, looking to meet down-to-earth Christian girl, 25-33 for friendship, possible, r/ship. I enjoy life, camping, warm fires, nights home, old-fashioned values and honesty. Photo appreciated. Write to: P M (GR 113), C/- PO Box 242, EUROA 3666.

MALE, FORTY, vegetarian, n/s. Seeks female for perm r/ship. I am easy-going and understanding and have good health. Joe Oginski, PO Box 119, WINCHELSEA, Vic 3241. Ph: 052-672-821.

TWENTY-NINE YEAR OLD with a penchant for silly hats, seeks a man to share the path with. Nonsmoking foodie, with a passion for life and the environment. Sense of humour, and a willingness to face feelings essen. Men who wear odd socks are encouraged to write. Daylesford/Woodend area. L L (GR 113), C/- PO Box 242, EUROA 3666.

WESTERN AUSTRALIA

SHARE GREAT LIFESTYLE, self-employed craftsman, seeking active, happy, affectionate lady for lasting r/ship. Great Southern-based, intelligent beach boy, (surf, swim, boat, walk, fish, play, etc). Also enjoy the bush, music, homelife, new interests and open minds.

Ageless 42, 6'1", n/s, s/d, no ties, honest and easy-going. Laidback but rewarding life with plenty of love and affection to share. Piscean (GR 113), C/- PO Box 242, EUROA 3666.

NORTHERN TERRITORY

MALE, FIFTY-THREE, 5'11", caring, average looks, slim build, happy nature, easy-going. Would like to live on a 50 ac rural block 1 hr from Darwin, mins from beach. Someone who enjoys fishing, camping and would like to take up a hobby or start a sml business, or whatever. Just as long as you enjoy yourself. For full details & photos drop me a line. What have you got to lose? D D (GR 113), C/- PO Box 242, EUROA 3666.

OTHER

FEMALE WANTS 1 or 2 people to share cost to Kimberley, WA 1996. Car & equip supplied or will travel with person going that way. In meantime person who likes travelling, bushwalking, camping, fossicking. Ph: 054-723-317.

ME - WOMAN 50s, Libra. You - 50s, n/s, intelligent, articulate, sense of fun and sometimes 'itchy feet'! I can move to wherever, even NZ when my house sells. Be a devil - write! PO Box 646, TUMUT 2720.

GENT, SIXTY, active, n/s, n/d, tall, slim, div, SOH. Lives on modern 36' yacht. Coastal traveller, exploring, meeting people, walking, snorkelling, writing, quiet times, and places, ex-WWOOF host, now WWOOFer, seeks lady companion. Write: Col, 28/20 Banks Ave, TWEED HEADS 2485.

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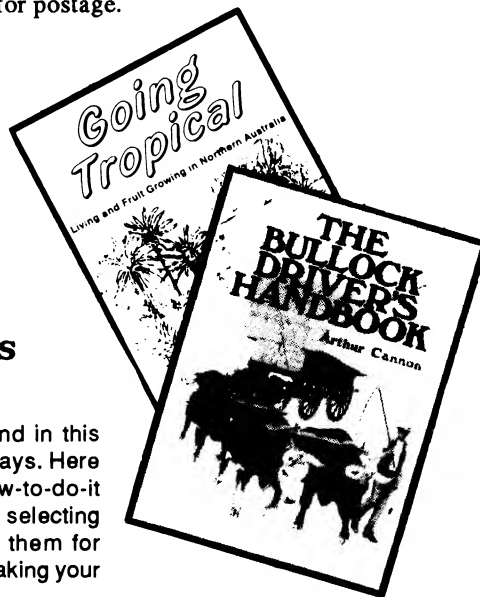
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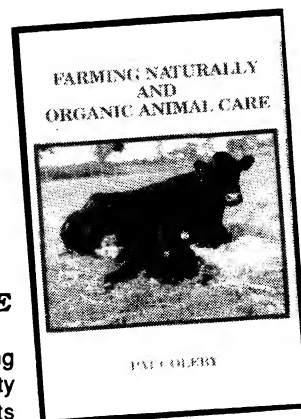
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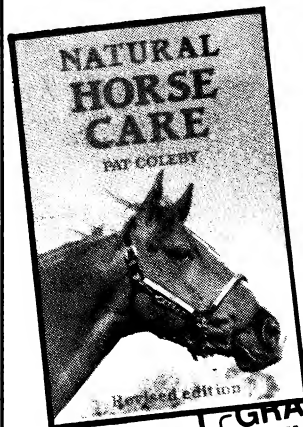
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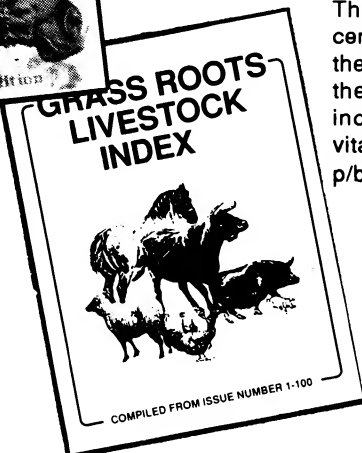
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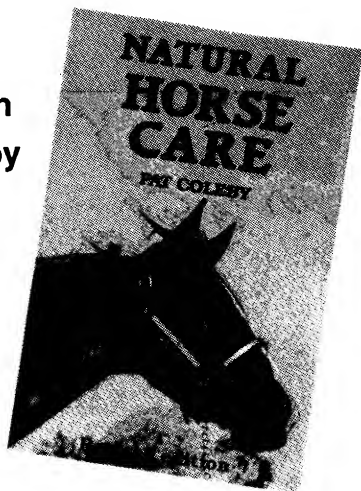
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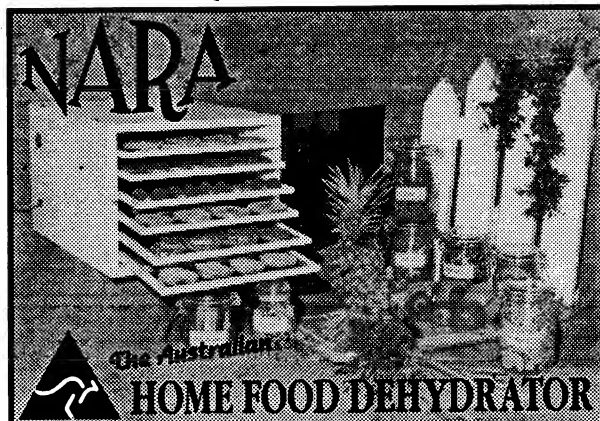
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